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CRITICISM OF
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BY

REV. JOHN MACWILLIAM

B.D. (ABD.), B.LITT. (OXON.)

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INTRODUCTION.

The philosophic reader will need no introduction to this book. He has only to read it and then to censure or approve. But the reader who is over-modest or who makes no pretensions to philosophy may require some initial guidance.

If wrong modes of thinking did not exist, there would be no need to philosophise. Philosophy in our opinion is only a kind of apologetic, that is, it does not so much reveal the truth as ward off the attack of error. Philosophy is rather a means to an end than an end in itself. Intuition and not philosophy is the absolute cure and preventive of error.

One might say in judgment of this book that it stultified itself; it condemns analytic and abstract thinking, and yet from beginning to end it is full of it. Our excuse is, if excuse we need, that we make no claim to reveal the truth; we only repel error. We are forced, at least to some extent, to use the weapons of the enemy. The dyer's hand is imbrued with that in which it has to work. One can reach the truth without the necessity of going through the arguments here traced out. This book is a protest against the worship of abstractions, the belief in matter and the unconscious and the unreasoning faith in the scientific intellect. If a man has no belief in dualism and the various disguised forms of materialism, if he does not

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pursue abstractions, and if he is not a worshipper of the natural sciences he can get on quite well without this book ; he is discharged from the necessity of reading it.

It may be said that Bergson's philosophy is not in vogue, and therefore that it is unnecessary to refute him. But we admit that it would scarcely have been worth while to refute the errors of Bergson if he had stood alone. But we have singled him out as the best and most eloquent representative of a vast mass of current opinion. We do not deal in personalities, and though his name is scattered very freely over these pages, we do not attack Bergson's philosophy because it is his, but because it is the philosophy of " common sense ". At the same time where Bergson deviates from " common sense," we generally agree with him. He himself has been to us of the greatest service in unveiling the errors of common sense. Having learnt much from him, we willingly acknowledge our indebtedness and have striven to do him justice.

Bergson typifies many erroneous modes of thinking current in the common mind. He does not appear to be in vogue, because everybody believes in his philosophy more or less. Bergson himself claimed that his views squared with those of common sense. To the ordinary, non-philosophic reader philosophy presents a foreign appearance, and its conclusions sound strange and repulsive. As a contrast to this, the methods and results of the experimental sciences of nature gain everywhere unquestioned belief. The object of this book is to scrutinise the presumptions of the natural sciences, to show their perversity, and to prove that they are the unconscious results of these same philosophic abstractions which are so much abhorred of ordinary people.

In contrast to Hegel, who condemns immediate consciousness in favour of mediate consciousness, this work is a criticism of some of the forms of mediate consciousness (quantity, space, causality, etc.) and a rehabilitation of immediate consciousness, not, however, in the form that Hegel gave to it, but in the form of intuition.

The phrase " concrete experience," so often used in this book, does not mean the sensuous concrete usually set in contrast to a mental abstraction. The true concrete is the knower and his total " situation " rightly apprehended, a whole of experience with nothing outside it. When we apprehend rightly, " things " as such, the so-called sensuous concrete disappears. Sense-objects are abstract, that is, they are isolated and disconnected from living experience and the process of removing their seeming independence and connecting them with universal mind is what we have called " integration ". If things or beings are apart or are supposed to be apart from universal mind, we cannot apprehend them or think them. We can know anything only by intuiting it as a form or agent of universal mind.

For true knowledge right volition is indispensable. So long as moral disorder exists phenomenally, absolute knowledge is impossible. When this principle is overlooked, we have the vice of intellectualism, exemplified by the scientists who sunder thinking from volition and assume naïvely that their thinking faculties are right and rightly directed. Bergson sees the interrelation of cognition and volition and protests against intellectualism. But of what value is this protest when he admits the validity of the results of the natural sciences and when he gives us for direction and guidance the aimless drift of natural evolution ?

We must forewarn the reader that concrete consciousness is not characterless, not an Absolute in which all distinctions are swallowed up. On the contrary, it is only in concrete consciousness that real distinctions are found. Abstractions do not produce distinctions but override them. On this principle the " Absolute " of Bradley's " Appearance and Reality " is certainly an abstraction. This, of course, involves the claim that we can grasp or intuite distinctions without the use of abstractions, and that the use of syllogistic reasoning is merely contingent on the necessity of refuting error. Syllogism is the less of two evils or a *pis aller*.

Bergson thought there were no degrees of intensity of feeling because he had assumed that consciousness was chaotic and incapable of furnishing clear-cut distinctions. He therefore concluded that the existence of a scale of intensities was unwarrantable from the mental point of view and was really due to the existence of space-quantity and the science of measurement. To apply measurement to mind was to him impossible and illegitimate. Our way of introducing clearness into the subject is to point out that measurement is an analytic process of mind, and is at any rate not less legitimate than any of the various other forms of abstraction freely admitted by Bergson, that a scale of intensities is not a concrete series of quantities but an abstraction, and that the mind from which the series of intensities of feeling is drawn is clearer and more distinct than any scale of intensities that can be put into verbal form. Bergson's remedy for the distortion of mind made by a scale of intensities is to abolish them. Ours is to enrich the scale of intensities, to return from the abstract to the concrete wherein hazy

and artificial distinctions are superseded by clear and natural ones. Bergson's complaint is that a scale of intensities introduces distinctions where none did previously exist; our complaint is that the scale of intensities is too abstract, and that it generalises and conflates real distinctions actually existing.

It is to be noted that the meaning here given to the term "sensation" is not exactly the same as that given it in ordinary text-books of psychology. Much of what is commonly classed as sensation would, in the nomenclature of this book, be classed as quasi-material perception. Our excuse is that we did not originate this use of the term sensation. Bergson's use of it is peculiar and equivocal. We thought it best in trying to sift the subject to follow the definition of Bergson himself of sensation as real action, to tie it down to this meaning and to separate from it all other shades of meaning. We have laid the emphasis on the volitional or inward aspect of Bergson's "sensation". An "interiorised" or "acquired" perception would have been a more suitable term, if it had not implied (what we do not admit) that perceptions are prior to sensations.

I have to thank many friends who have encouraged me in getting this book ready for the press and who have helped me in correcting the proof-sheets.

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CHAPTER I.

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THE title, literally translated, of Bergson's first important work, "The Immediate Deliverances of Consciousness," is preferable to the name which the book gets in its English dress, "Time and Free-will". The latter, no doubt, indicates the chief problem which he set himself to solve, but the original title gives the clue to the method by which he sought to solve that, as well as all other problems. The method consists, not in answering philosophical questions directly, but in scrutinising the presuppositions that underlie the question, and in showing that they are erroneous. The business of Philosophy is not to solve problems, but to reach a point of view at which problems do not exist. Intellectual problems are artificial and factitious, and are bred by the intellect itself getting entangled in its own windings. The difficulties exist in words for a consciousness which expresses itself by means of symbols, but do not exist for direct immediate consciousness. The solution of a problem is not intellectual but intuitional; it is a return to pure consciousness uncorrupted by analysis.

Kant, though he made mind the legislator of Nature, had not thought it necessary to discover, or apply, any special form or mode of apprehending psychical facts. He had put them on the same level as physical phenomena, and had regarded the categories of things as adequate for grasping the processes of mind. He studied mental phenomena with the habits and bias acquired unconsciously in the study of external nature. Thus, following Kant, we rarely come into direct awareness of our mental states. Our view of our inner states is coloured, confused, and distorted by our view of external things. It is necessary to remove this falsifying medium, and to come, as it were, face to face with ourselves, and to study psychic states without prejudice. For this it is necessary, not to devise new categories which might be supposed to be adequate to the matter in hand, but simply to dispense with the material categories devised by the intellect, and to allow consciousness, metaphorically speaking, to speak for itself.

Our ordinary consciousness is broken and discontinuous, full of lacunæ. It is perverted by half-views and conflicting abstractions. It is an impoverished and fettered consciousness. It is the work of philosophy to show us how to go back from half-views to whole views, from abstractions to complete, concrete consciousness. What we call consciousness is ordinarily a confusing blend of diverse elements. Consciousness must be extricated from this confusion, due more particularly to association with the external world; this is Bergson's main principle. The proper course would seem to be to test Bergson's arguments by the principle which he has himself enunciated.

The notions that fall to be investigated according to this method are those of Intensity, Time, and Causality. They concern, severally, the relations of quality and quantity, duration and space, freedom and necessity. We shall take them in their order.

Are there Degrees of Intensity?

In ordinary language we have no hesitation in ranging our emotions, feelings, and sensations under degrees of comparison, or degrees of intensity. We say that one person is more sad than another person, or that we ourselves are more sad at one time than at another time; that our sensations of cold, heat, or brightness, increase or diminish. We even go so far sometimes as to give an exact mathematical estimate of our feelings, and to say that we are twice as pleased, or twice as warm, at one time as at another time. The tendency to quantify and measure our feelings is thus very apparent. All use of degrees of comparison, all application of the terms "more," "less," implies that feelings are in some sense measurable. But how is this to be understood? Is it metaphysically justifiable? Does it do justice to the character of mental states? We understand what is meant by measuring distances, or counting external objects. But can we count or measure psychic states? Can we compare psychic states with one another; can we give two psychic states the same name, and say that the one is more, or less, than the other? In other words, are psychic states capable of degrees of intensity?

The thesis which Bergson seeks to establish is, that psychic phenomena (sensations, feelings, etc.) are not susceptible of degrees of intensity; that under such treatment they suffer deformation. We can get a scale of intensities of one psychic state only by introducing homogeneity where homogeneity did not previously exist. It is the defect of language that makes us say that we are more hot, or more sad, at one time than at another time. There is real variety in those conscious processes which we describe as intensities, or as quantities, more or less of a single sensation or emotion. Language cannot reach to that variety. It figures a thousand emotional tones and

varieties of feeling under one word. When we examine these degrees of intensity, we find that they cover real qualitative change, and suppress the genuine nature of the psychic states themselves. Each degree of intensity is qualitative, and therefore inexpressible in terms of some other quality.

Bergson's object is to bring out the distinctive nature of psychic states. Every mental state has its own shade, or tone, of feeling ; and we overlook this when we attempt to measure these mental states, or compare them with one another quantitatively. The ordinary consciousness tends to melt down all qualitative differences to a quantity, more or less, of a single quality. But, in truth, each quality is *sui generis*, and cannot be quantified, i.e. cannot be turned into a unit and added to other qualities. For if psychical phenomena are not susceptible of being classified under vague degrees of intensity, i.e. of being ranged under the categories of " more " or " less," much less are they subject to exact mathematical measurement.

Does Bergson prove his thesis ? The question naturally arises : How do we come to suppose ourselves to have experience of varying intensities of a single sensation ? Since this comparative, or quantitative, intensity of feeling is denied to be an immediate datum or content of consciousness, whence comes it ? Bergson's reply is that intensity is an impure or spurious concept, generated by the blending of the notions of quality and quantity. Thus, when I have an emotion of anger, I am impelled to certain involuntary bodily movements. The extent of the body affected is reported by visceral and peripheral sensations, which immediately join themselves to the original emotion. These sensations bear the mark of extension or quantity, and carry quantity into the original feeling, which is quality. Measurable intensity would be an instance of empirical association of ideas. The notion that sensations are measurable would be due to association with the measurable spaces and bodily surfaces which accompany them. Quan-

tity is measurable, but quality is not. The bodily parts or organs affected by the sensations may not be attended to, or actually measured, but none the less they carry a certain mass or volume into the quality of a feeling so as to produce a certain intensity vaguely supposed to be measurable.

Again, there are many conscious processes such as those of an æsthetic character, which seem to call forth, not sensations, but a variety of images, ideas, and subsidiary feelings, which add themselves to the original æsthetic feeling, and produce the notion of intensity. In this case we can define intensity, according to the same principle, as an illegitimate blending of quality with multiplicity—quantity and multiplicity being convertible terms. This multiplicity is exactly on a par with the multiplicity of external objects. It bespeaks the influence of the external world, or rather of the circle of ideas to which the external world gives rise. These feelings or ideas are regarded as simple states of consciousness, i.e. as exactly like external objects, isolable units, which can then be summed up. Their quality is ignored or suppressed. Their weight or influence is simply due to their greater or less number, i.e. to their quantity. And their quantity associated with the original feeling produces the notion of intensity.

We signalise here a point to which we shall frequently find occasion to refer. Bergson does not settle his problem by taking the immediate deliverance of consciousness. He seeks an intellectual, not an intuitional solution. He pursues a method of abstraction, he splits intensity into two elements which have each its rights and its appropriate sphere. But these spheres are now set in irreconcilable dualism; the bridge between them is declared out of bounds, to be, in fact, a road over which the philosopher has no right-of-way though the ordinary man can walk in it. He makes, indeed, the awareness of quality immediate, but at the cost of putting quantity outside immediate consciousness, and of making the awareness of it second-

hand, or assumptive. He discards integral consciousness altogether.

Now, when we examine the two elements into which intensive sensation is split up, we find that they are not pure at all. Complementary abstractions always carry the marks of each other. We find in this so-called pure quality, quantity or multiplicity, and in the so-called pure quantity we find quality. This consciousness which Bergson thinks is pure qualitative change is really beset with influences which make for homogeneity, and wherever there is homogeneity there is quantity. In this " pure " consciousness there is the mathematical unit, that is to say, the sensation which remains the same, identical with itself, whilst the rest of the consciousness changes. In it there is also multiplicity, a breaking up or analysis of mind into ideas, images, feelings, efforts. Immediate consciousness can admit neither the mathematical unit nor mathematical multiplicity—neither abstractions nor particulars.

Bergson does, indeed, argue as if multiplicity came from external things, i.e. emanated solely from the side of quantity, bringing the notion of quantity into qualitative consciousness. But he constantly implies that before and aside from all relation to any so-called external world, numerical multiplicity exists in pure consciousness. Bergson feels the inconsistency here, and tries in his next chapter to distinguish between a qualitative multiplicity and a mathematical multiplicity. But the distinction is quite otiose, even as the argument that leads up to it savours of special pleading. Wherever there is multiplicity at all, you can count, and indeed how can a multiplicity ever originate without counting ? Multiplicity and measurement imply one another, and according to Bergson's own principles quality is *sui generis* and non-measurable. If there be a pure consciousness at all Bergson has not succeeded in showing it.

Quantity at Bottom a kind of Quality.

We turn now to examine the other element, or ingredient, out of which intensity was supposed to be compounded, and we ask whether he has been successful in revealing pure quantity. Is there any such entity? Bergson himself admits that we know a quantity only by its quality. All quantities are intensities of sensation. Bergson says that we measure the intensity of a pin-prick by putting the amount of effort of pin-pressing into the quality of the felt prick. But what is this effort? It is supposed to be a quantity, but it is in reality a quality. Carry back your analysis as far as you will, you will never come to pure quantity.

Moreover, Bergson falls into contradiction with himself on this point. For, whereas in the matter of the pin-prick he assumes that effort is a measurable magnitude, he elsewhere assumes that effort is an intensity of sensation, non-measurable, and seeks to account for the appearance of quantity in it. This he does by saying that the consciousness of a greater intensity of effort is reducible to a perception of the larger surface of the body affected. But by this mode of reasoning, he is showing, not the true nature of the conscious effort, but its external relations. He does not allow the effort to "speak for itself," but reduces it by analysis. The effort is *sui generis*, and cannot be equated with the perception of any surface, large or small. Even if the equation is made, the perception of any surface is still not measurable by the extent of the surface perceived; it is still qualitative.

We can know quality without quantity or multiplicity, but we cannot know quantity without quality. Bergson constantly assumes that we have a way of knowing quantity apart from quality. So far is it from being the case that we know quantity apart and then import it into sensation to constitute a certain *degree* of sensation, that we begin

by knowing a certain intensity of sensation or feeling, and make this determinative of our notion of quantity. This Bergson afterwards admits. Our knowledge of quantity is secondary and derived. It comes by way of analysis. Quantity is simply quality reduced by abstraction. It is not an addition to our knowledge ; it results from a denudation of qualitative consciousness. So far is it from being the case that quantity is imported into quality that it is rather, to use a commercial metaphor, " exported from it," or drawn out of it. Quantity is derivative from quality. There is no pure quantity. What is not qualitative in quantity so-called is pure fiction.

The result is this. Bergson finds intensity an inharmonious or self-contradictory concept, blending two ideas—quality and quantity—which have no relation to each other. He attempts to unravel the tangle, to separate the two elements, and to reveal them in their purity. But the same self-contradiction which he finds in the concept of intensity runs through the two elements into which it is analysed. The so-called pure qualitative change has quantified elements, or multiplicity, within it, and the so-called pure quantity, if it is anything at all, must be qualitative.

We can put the same criticism in another way by saying that Bergson treats intensity sometimes in an analytical way, sometimes in an intuitional way, in other words, sometimes as a quantity, sometimes as a quality, without seeing that the two modes of treatment are incompatible, and lead to contradictory results.

Sometimes the point of his argument is that all intensity is to be integrated into qualitative change, as when he says that a warmer heat is really a different kind of heat. Intensity would then be a confused perception, or blended feeling, due to abstraction, or the rendering homogeneous certain aspects of consciousness. This amounts to saying that quantity is simply quality abstract. If we cleared away the confusion of emotions or perceptions, and returned

to the immediate deliverance of consciousness, we should perceive nothing but pure qualitative variety. There would be no quantity, there would be no need to count or to make use of number. If we proceed in this way we must discard language. Language always involves quantity. It breaks up and analyses consciousness, quantifies states of consciousness by means of abstract concepts, and fixes them in words. Hence it would be an inadequate, if not an erroneous statement of the case to say: "A more intense heat is really a different kind of heat". A more intense heat cannot be called "heat" at all, much less a "kind" of heat. It cannot receive a name, or be classed as a kind or genus. If the confusion latent in the notion of intensity, or intensive quantity, is to be cleared up, language must be transcended. It is the tearing of quality out of its context that results, first in degrees of intensity, then in discontinuity, discreteness, multiplicity, quantity. Restore the mutilated text, return to the immediate deliverance of consciousness and quantity in all its so-called forms of intensive and extensive magnitude disappears. This would be a perfectly consistent line of reasoning, and, if held to, would solve the problem. Intensity as well as quantity would disappear in non-measurable qualitative change.

On this view, there is no room for quantity or multiplicity. Quality and quantity cannot stand side by side. Quantity is incompatible with immediate or integral consciousness. Quantity would be something negative. But Bergson assumes that even when intensity is reintegrated with immediate consciousness, quantity still remains. He finds in intensity not merely quality, but quantity as a positive element. He tends now to treat intensity as in essence a quantity, and the line of reasoning whereby he finds quantity in intensity is inconsistent with the reasoning whereby he finds quality in intensity. Sometimes he refers intensity to quality, sometimes to quantity, thus producing great confusion in his argument, making it difficult to understand what he means by "intensity". He uses the

term to mean sometimes quality purified of quantity, sometimes quantity abstracted from quality. When he means the second, the intensity of a feeling or sensation is to be referred, not to its own quality properly intuited, but to the number of subsidiary sensations, ideas, or feelings that appear associated with it. From the former point of view, that of immediate consciousness, quantity disappeared without remainder, as being a confused, erroneous mode of apprehension. From the second point of view, intensity is also made to disappear, but only to reappear in the form of a number of associated psychic states, which can be summed up, i.e. a quantity.

If Bergson were to define a more intense terror in the same spirit as he defined a more intense heat, he would be bound to say that a more intense terror was some new process of consciousness *sui generis;* he would refer it to qualitative change. This would be going back to the immediate deliverance of consciousness, to quality. But instead of doing this, he refers the intensity of terror to the greater number of peripheral sensations occasioned by the movements induced by the terror. Where the number of these peripheral sensations is greater, the terror is more intense, where the number is less, less intense. He refers intensity to quantity.

Now the point of our criticism is this: he defines a more intense terror here not by itself, but by its accidental relations; not by integration, but by analysis; not by concreteness of consciousness, but by abstraction. Whereas formerly he had taken the point of view of the living experiencing subject who does not, in the sway of his emotions, analyse them, he now takes the point of view of the professional psychologist. From the former point of view, i.e. immediate consciousness, a different account of the matter is necessary. When we become conscious of the peripheral sensations accompanying terror, that is a sign that the terror is on the wane. Properly speaking, terror suspends organic sensations. The stronger the terror is,

the more it tends to exclude everything else. It is only when the feeling of terror dissolves, becomes in ordinary parlance, less intense, that the consciousness of organic sensation appears. And the more the subsidiary sensations develop, the less intense the original feeling becomes. This process involves an ignoring of the quality of the terror, of its inherent relations to our whole soul, of its actual historical significance. Bergson thinks to arrive at the truth about intensity in two ways: First, by going back to the continuous qualitative variety of consciousness; and secondly, by analysing this consciousness into a discrete homogeneity, which implies quantity; and he does not see that the two modes of dealing with experience are incompatible with one another.

For concrete consciousness emotion does not come into relation with a multitude of subsidiary feelings. These latter feelings do not arise. Hence the original feeling cannot be described as a unit in relation to them. It is analysis, the external point of view, that turns the concrete unity into a unit, and then proceeds to analyse it into a multiplicity. Analysis tends to regard consciousness as a series of abstract particulars, i.e. mathematical units. Bergson mixes up this analytical view of consciousness with consciousness itself. Thus he constantly assumes that consciousness has states that can be numbered. Bergson proceeds to war against the notion of intensity, i.e. of a quantified feeling, but ere he starts his campaign gives his whole case away to the enemy, viz. the Associationist, Psychologist, and the Psycho-physicist, by assuming that sensations can be counted or numbered. For what is a sensation numbered but a quantified state of consciousness? Bergson seems to think and argue as if the numbering of sensations could go on apart from measurement. Whereas it is patent that numbering and measuring are exactly the same process.

We observe this swinging in Bergson between immediate concrete consciousness and the standpoint of analysis in

his account of artistic emotions or feelings of beauty. How do they come to have a quantitative aspect, to be capable of degrees? Here Bergson suddenly introduces a distinction between two kinds of degrees, viz. degrees of intensity and degrees of depth or elevation, oblivious of the fact that these two kinds of degrees, properly understood, are only complementary abstractions—two ways of looking at the same reality. This distinction is analytic, and cannot exist in immediate consciousness. These distinctions, which are brought in to make the problem easier really confuse the issue.

Bergson does not Solve Problems by Reference to Immediate Consciousness.

Let us first consider the degrees of depth or elevation. Here reference is made to the richness, variety, and extent of influence of the ideas and emotions included in the original emotion. We obtain richness, depth, or elevation by going back to immediate consciousness. "Depth" and "elevation" of consciousness are only spatial metaphors. When we assume "*degrees*" of depth or elevation, we make the mistake of taking the metaphor literally. When we unveil the truth behind the metaphor, the supposed "degrees" disappear, being only abstractions, and immediate concrete consciousness takes its place. On this view "degrees" would be referred to qualitative change. But Bergson does not hold to this point of view. For he winds up his account of the matter by referring ("Time and Free-will," p. 18) "degrees of depth to the larger or smaller number of elementary psychic phenomena which we dimly discern in the fundamental emotion".

Bergson here reverses his former explanation of degrees of depth. He defines them now by quantity, not by quality. He defines them now by analysis, not by integration, by external, not by internal relations. He pulverises the "degrees" which are already vaguely mathematical into

a definite arithmetical multiplicity. These elementary psychic phenomena cannot arise so long as the genuine Art feeling is present; they do not reveal the riches of the art-feeling, but manifest its impoverishment; they show not the merit but the demerit of the work of art. The good picture annihilates the canvas. It does not allow attention to wander to minor details, but draws consciousness to the wider ranges of the soul. Bergson speaks of these psychic phenomena as being " dimly discerned ". This dim awareness is possible only in mediate or analytic consciousness, but totally impossible in immediate consciousness, in which what is cognised is cognised directly, without confusion, without degrees of awareness, and without mathematical multiplicity. The psychological or analytic point of view is quite incompatible with the æsthetic consciousness, or with what at the present state of our argument may be taken as equivalent—the intuitional consciousness.

We come now to consider the explanation which Bergson gives of the degrees of intensity of the art-feeling, which he distinguishes from degrees of depth or elevation. And here we notice the same contradiction, the same swinging between immediate consciousness and analysis, between quality and quantity. He distinctly says that the intensity of the æsthetic feeling depends on the fact that it breaks the texture of psychic life, draws away gradually attention from the main current of consciousness to itself, and finally puts itself in the place of the other phenomena of consciousness, " absorbing us and monopolising our whole soul." Now, if his original account of degrees of depth, or what is the same, degrees of richness, be accepted, then any degree of intensity is incompatible with any degree of richness. For richness in degree would depend on the variety of relations of the art feeling with every aspect of life; intensity, on the fewness of these relations. The intensity of a feeling would depend on its power of isolating itself, of turning itself into a mathematical unit; its depth or richness on its connecting itself with the variety of conscious

life. The more intense a feeling was the less rich it would be, and *vice versa*. Intensity would be the state of relative monoideism, i.e. of a man who was hypnotised in contemplation, or absorbed in a single state of consciousness. Richness or depth of feeling would belong particularly to the artist engaged in developing his consciousness of beauty.

This lands us in a manifest dualism, a dualism into which Bergson continually falls by his use, or rather abuse, of abstractions. One false abstraction necessarily leads to another. The correction cannot be made by stereotyping the abstractions and setting them down side by side. We have no right to abide in dualistic abstractions. Immediate consciousness is the remedy for all dualism. Just as we pointed out that the richness or depth of a feeling cannot be analysed into a multitude of psychic phenomena, i.e. a mathematical multiplicity, so we must point out that the power, or intensity, of a feeling or sensation cannot be reduced to a mathematical unity, i.e. equated with atomic consciousness. When one feeling absorbs the whole soul, this means not an intensifying or heightening of consciousness, but an impoverishment or depression of it. Consciousness cannot give its power to any single state. In immediate consciousness feeling does not absorb or monopolise the whole soul, but the feeling is absorbed or integrated with the whole soul. The power of a work of art does not depend on its hypnotic effects, but on the way in which it touches—to use a rather clumsy metaphor—every aspect of our experience. On this view the power or intensity of a work of art is proportioned to its richness or depth. And thus the distinction between degrees of intensity and of richness disappears for immediate consciousness. Rightly understood, the intensity of the art-feeling is simply its wholeness or totality; its richness or depth is its internal variety. But these two points of view can never, as assumed by Bergson, be separated from one another.

The truth is, that, seeing that Bergson had started out

to explain what is meant by degrees of intensity, he had no right to complicate the problem by introducing, or assuming, another kind of degree, viz. that of depth or richness. This new distinction is a bypath leading away from the trail. It confuses the issue which is just this—how we can apply the conception of degrees to conscious states whether these be states of richness or of intensity. Instead of showing what he wants to show, what he feels to be the truth, and what we believe it is open to him to show, viz. that there are no "degrees" in immediate consciousness, he shows that consciousness is split up into an infinite number of unrelated atoms.

His whole difficulty is due to the fact that whilst maintaining that consciousness is qualitative change, he at the same time assumes the validity of the ordinary concept of a psychical unit, such as a "sensation," a "feeling," an "emotion". We may illustrate this point by citing page 25 of "Time and Free-will": "When you press your lips more and more tightly against one another, you believe that you are experiencing in your lips one and the same sensation which is continually increasing in strength: here again further reflection will show you that this sensation remains identical, but that certain muscles of the face and head and then of all the rest of the body have taken part in the operation." First of all he denies the common supposition that there is a quantitative change, more or less, of the sensation. Only two alternatives then lie open: either that the original sensation should disappear, or that it should manifest qualitative change. We are surprised, therefore, when Bergson goes on to write that the sensation remains, and also that it "remains identical". He here denies qualitative change, as he had previously denied quantitative change. He here evidently regards the sensation as an atom unaffected by relations, or capable only of external relations, as a mathematical unit, to which other sensations, or psychic units of like nature add themselves. If the sensation "remains identical" it can be

quantified, and intensity can be nothing but a sum of sensations. Intensity would depend not on the quality of the sensations, but simply on their arithmetical sum.

Bergson had set out to prove that quantity or measurement had no legitimate place in sensation. But his argument does not entitle him to extrude quantity or measurement, even out of the highest reaches of consciousness—not to speak of sensations. The only inference one can draw from the confused reasonings of Bergson is, that all intensities are magnitudes or mathematical totalities, and that all qualities are quantities. The very act of isolating qualities turns them into magnitudes. His method of contrasting quality with quantity results in the quantifying of the quality. The quality becomes an atom opposed to the multiplicity or quantity of concomitants. It becomes an abstraction modified by that which has been abstracted from it, namely magnitude. Thus we arrive at the absurdity that psychic states are in some sense magnitudes.

That Bergson has not succeeded in showing that psychic states when properly cognised are pure from quantity is shown by his statement ("Time and Free-will," p. 26): "We are thus led to define the intensity of a superficial effort in the same way as that of a deep-seated psychic feeling. In both cases there is a qualitative progress and an increasing complexity indistinctly perceived." This "complexity" is supposed to be non-quantitative. But if it is something different, as is implied, from qualitative progress, what else can it be but a quantity? and the use of the term "increasing" confirms this interpretation. This "complexity" is supposed to be non-measurable; but how can we talk of an "increasing complexity" unless we are able or suppose ourselves able, to measure it. The use of the term "increasing" gives the whole case away to those who maintain that psychic states can be quantified; and begs the question as against those who hold that quantity does not exist either in mind or in the so-called external world. Bergson, whilst ostensibly trying to

show the nature of psychic states without metaphors drawn from the external world, surreptitiously introduces them.

One may remark in passing that the phrase " qualitative progress " calls for examination. Is it not an illegitimate, or " impure " combination of quality and quantity ? Does not the use of the term " progress " as that of the term " increasing " imply a spatial metaphor ?

Furthermore, it has to be pointed out that when Bergson defines " intensity," the real problem is evaded which is to define a " growing intensity," or degrees of intensity, that is, to explain how psychic states come to be supposed to " grow " or diminish. When Bergson does come to define what a growing intensity is, he uses language which already implies the growth or increase of psychic states. Thus (" Time and Free-will," p. 26), he says : " Our consciousness of an increase of muscular effort is reducible to the two-fold perception of a greater number of peripheral sensations, and of a qualitative change occurring in some of them." He is here arguing in a circle. After the " reduction " of the sensations which are illusorily supposed to be quantitative, quantitative psychic states reappear in the shape of a greater number of peripheral sensations. In explaining the " increase " of the muscular effort, he brings in the very notion which he has to explain ; he postulates an " increase " of peripheral sensations. An " increase " in the number of peripheral sensations is as mysterious and thought-provoking as an " increase " in the sensation of effort. How can sensations be counted and summed ? That is the problem. He speaks here of a greater number of discrete sensations, at the very moment when he is trying to prove that sensation, properly speaking, is continuous qualitative change. He thus subverts his own standpoint, and makes it impossible for him to prove —what he seeks to prove—that sensations cannot be numbered.

Again—Bergson speaks of a qualitative change occurring in " some of them " (sensations). Why " some " ? He

implies that there are sensations which do not change. Here we have the notion reappearing of an "identical sensation". Now a sensation which does not change is a quantity, a mathematical unit. This is the basal assumption underlying, not only the notion of an increasing number of sensations, or an increasing "complexity" of consciousness, but also the notion of a growing intensity of sensation and feeling. Bergson objects to the notion of the increasing intensity of a sensation. Is not the notion of a "series" of sensations equally objectionable? Are not the two notions fundamentally the same? The one implies a non-qualitative plurality, a homogeneous multiplicity within the sensation; the other implies a non-qualitative plurality, a homogeneous multiplicity outside the sensation. The admission of this leads straight to the application of the notion of quantity to consciousness, and the subjecting of the conscious process to mathematical categories.

Again—when he states (*ibid.*, p. 29) that the growing intensity of anger "is, we believe, nothing but the deeper and deeper disturbances of the bodily organism," he argues in a circle. A growing mental disturbance, a series of degrees of intensity, is referred to a "deeper and deeper disturbance" of body. He juggles with the words "growing" and "deeper," which mean the same. The problem is to explain, not intensity, but a "growing" intensity. He accounts for "increase" at one aspect of consciousness by assuming an increase in another aspect of consciousness. But the difficulty is how "increase" can apply to conscious states. The phrase "deeper and deeper" is a misleading spatial metaphor. A disturbance of the organism is still a psychic state, and how a psychic state can become "deeper and deeper" is still the mystery.

Illegitimate Assumption of Measured Bodily States.

Bergson's final explanation of measured conscious states is that they arise by association with measured parts of the body. He assumes that external things cause our sensations, and that having an independent knowledge of the magnitude of these external things we introduce quantity or measurement into the sensations themselves. Sensations themselves would be pure quality. A quantified sensation would be an acquired perception. Quantity, in the shape of external movements, and measurable bodily surfaces, being by habit and custom colligated with the sensations, gives rise to the notion of an intensive sensation which can increase or diminish or become amenable to the categories of mathematics. Thus, in his account of the intensity of anger above referred to, he says that consciousness has " no difficulty " in measuring the deeper and deeper disturbance, by the number and extent of bodily surfaces concerned. Again he explains (*ibid.*, p. 30) a little further on, that it is by the reflex movements that accompany terror that this emotion becomes " capable of passing through different degrees of intensity ". The movements are measurable, therefore the sensations are thought to be measurable too.

This assumes that the number and extent of the bodily surfaces and movements are previously known. What legitimacy is there for the introduction of the concept of body at all ? Here Bergson introduces another distinction, another dualism, which appears to help him in the solution of the problem, but which really produces confusion. If there be a body at all, it cannot be known apart from mind. Bergson departs here again from his standpoint of immediate concrete consciousness. How body can appear to immediate consciousness is inexplicable. The number and extent

of the bodily surfaces concerned in feeling is determined, not by the body, but by the mind. It is not the disturbance of the organism that determines the conscious state, but reversely, it is the conscious state that throws the body into disturbance. Body itself is nothing but a conscious state. One must have the conscious state before one can measure the bodily disturbance. It is not the body that measures the mind, but contrariwise, the mind that gives the measure of the body.

Bergson commits the same error which we have already pointed out in his attempting to clear up the notion of intensity of sensation, not by integrating it with immediate consciousness, but by analysing it, or to use the phrase which he constantly uses, by "reducing" it. We have already pointed out the error into which he falls of analysing the acuteness of an emotion, such as anger, into a number of peripheral sensations. He confounds the point of view, or rather, the emotion, of the angry man, with the point of view of the analytic psychologist. The angry man does not measure his wrath at all by estimating either the number of his sensations, or the extent of the body that is disturbed. These sensations are acute, or in other words "intense," because the anger is acute. The acuteness of the emotion is anterior to the peripheral sensations, and anterior to any supposed measurement of bodily surfaces implicated in the sensations. These peripheral sensations gain their significance from their relation to the ruling emotion. An emotion such as anger is of course already analytic, already involves a breakage of concrete consciousness; but we reach the truth of the emotion, not by analysing it still further, but by restoring its relation with original consciousness, in which the emotion as such would change its character.

What Bergson now does is to carry his analysis a stage further. He has already analysed intensity into a vaguely-defined quantity—which, he says, is non-measurable—of peripheral sensations. He now analyses these latter into

exactly measurable movements and bodily surfaces. As he carries his analysis further and further, he comes nearer and nearer to exact measurement and to mathematics. He then hypostatises the results of his analysis as " things " or " bodies," and supposes that these things or bodies stand outside of, or independent of consciousness, and introduce mathematics into the mind. Nay more, they even " cause " our sensations.

In truth external things do not cause our sensations, they do not even condition them, they are the outcome of the analysis of sensations. We have no awareness either of external things, or of our own bodies prior to sensation. There is no standard in external things whereby we can measure conscious states or external things themselves. The standard of measurement, if standard there be, is in the mind itself. Our judgment of quantity is not inserted into our judgment of quality, but is derived from it, or analysed out of it.

Can Psychic Phenomena be brought under Mathematical Laws?

The question as to the measurement of sensations is largely an artificial one. Ordinary consciousness does not attempt exactly to quantify its sensations. It contents itself with vague comparisons. But natural science coming to the investigation of sensations with its own assumptions, and particularly with its pseudo-ideal of mathematical exactness, attempts to number and measure sensations. But this process involves not a more, but a less exact knowledge of sensation. It involves the introduction of homogeneity, a relative ignorance, a partial destruction or obscuration of quality. It is totally incompatible with immediate consciousness. The common-sense use of the degrees of comparison is already a step towards quantification. But this does not involve such a distortion of immediate consciousness, as the application of mathematics

to the conscious process. These comparisons are not knowledge, properly speaking, and the way to reach the knowledge that is covered by them is not to attempt to quantify them exactly, but to return to the concrete, to immediate consciousness, wherein quantity and quantitative comparisons are impossible and unnecessary. We reach the truth of peripheral sensations, not by analysing them into modes of matter, but by reintegrating them with mind, wherein sensations with the vague nuance of materialism disappear.

The mistake of Bergson is that, though he denies that properly speaking, sensations can be quantified, he allows quantified sensations, *alias* " things " or " bodies," to stand as ultimate. He thus splits experience into a dualism, says that quantitative judgments ought only to be applied to physical things, and qualitative judgments only to consciousness. He then refuses to allow qualitative and quantitative judgments to be combined in any manner, though it is plain that there never is, nor can be, a quantitative judgment apart from a qualitative judgment. The objection to the Bergsonian treatment of the problem is that, instead of solving it by going back to unity, he resolves it into a series of abstractions, each of which constitutes a new problem. He hardens the incipient dualism of ordinary consciousness, and the hypothetical dualism of natural science into a metaphysical dualism.

It does appear as if we can compare one sensation with another without reference to their quality. It seems quite legitimate to say that one sound is louder than, or higher in pitch than, another. Thus, we commonly say that the sound of the door-bell is louder than the ticking of the clock. These judgments, however, have always to be qualified by a reference to immediate consciousness. In the deep silence of the night, in certain states of mental strain, the ticking of the clock may appear to me as loud as the sound of the door-bell. When a thunderstorm is

going on, sounds from door-bell or clock may be indistinguishable. And when I am in deep meditation, I may be oblivious of clock, door-bell, and thunderstorm altogether. In certain cases these judgments may be completely reversed. A watchmaker, when busily testing a clock which he is repairing, may hear the ticking of the clock, and at the very moment allow the ring of the door-bell to pass unperceived. What I hear depends on what I am interested in. Thus, in a ship at sea in a storm the passenger may hear nothing but the general roar of the elements overhead, whilst the captain may be oblivious of everything else but the sound, far distant, of " breakers ahead," which betoken " sunken rocks " and the ship in danger. These comparisons do not maintain themselves, either within the experience of the individual, or as between the experience of one individual and that of another. When we integrate these experiences with concrete mind, these comparisons fall away, quantity disappears, and quality alone appears. These judgments of comparisons are entirely relative.

Now Bergson admits this principle, and proves it for mental states, but does not admit it for what he terms external things. He affirms the principle for qualitative states of mind, but stops short of applying it to quantities or magnitudes. He admits of degrees of comparison for external things, but not for mental process. This is illogical. It seems right to say that four miles is longer that two, and to maintain this comparison as absolute. But in truth statements of this kind apply only to abstract numbers, not to concrete distances. When we come to immediate experience, all is changed. Two miles may then be longer than four. Distance cannot be dissociated from time and the quality of our experience. Four miles walked in a buoyant mood, when our ideas rush swiftly along may be shorter than two travelled in the company of gloomy thoughts. The same principle appears in the proverb: " A cheerful companion is as good as a coach ".

Bergson points out ("Time and Free-will," p. 51), that every shade of white has its own particular colour, which we generally overlook owing to our habit of considering colours from the point of view of their brightness alone. We can apply the same principle to distances. Every distance has its own colour or quality. The distance between us and the nearest town is always changing, and we never traverse the same distance twice. It is ignorance, inability to perceive qualitative change, that leads us to say that one distance is the same as another. The physicist lumps qualitative differences together, renders them homogeneous, and thus makes them subject to quantity. It is the psychologist who preserves the more concrete point of view, or the artist who does not manipulate experience for utilitarian ends, who perceives the qualitative change in shades of colours and in distances. The psychologist, when he adopts the quantitative and experimental methods of mathematics and physics, thinking thereby to make capital for his science, abandons his proper point of view, neglects to study what he ought to study, perverts the branch of knowledge which he owes allegiance to, and makes himself a mere tool of the physicist.

The notion of comparative degrees of sensation, or of an increase or diminution of sensation, is figurative and symbolic, an imposition on consciousness due to the clumsiness of language. What is behind all these comparisons and increases of sensations is qualitative change. And this applies no less to so-called quantities or "objective" magnitudes than to conscious states. There is no absolute magnitude, no fixed external objects which remain permanent whilst conscious states change, and which can be used to quantify these conscious states. Bergson says that the notion of "increase" or of "degrees of comparison" can be applied not to intensities of sensation, but only to magnitudes. But concrete magnitude, by which is not meant material magnitude, but magnitude as it exists for conscious experience, is exactly on the same footing as

sensation. It too is *in* qualitative change, and can neither increase nor diminish quantitatively, nor be subject to degrees of comparison. The modern theories of Einstein, and the scientific experiments connected therewith, lend full support to the view that it is impossible to obtain exact measurements in the so-called external world. All velocities, weights, and configurations, etc., observed in the phenomena of the stellar spaces are subject to change.

The error of Bergson is that instead of seeing that quantity or magnitude is psychic, not material, and integrating it with consciousness, he separates it from consciousness and hypostatises it either as opposed to quality or as springing up alongside of it, or as underlying it. He supposes that quantity is a positive entity and that the knowledge of quantity is an addition to the knowledge of quality. Thus, to return to an instance previously cited given by Bergson himself ("Time and Free-will," p. 51), he shows that the colours of a coloured surface do not remain fixed, but change into a variety of hues, as the candle-power is increased or diminished. Yet these hues are not ordinarily perceived; we take into consideration generally only the shades between black and white. We thus quantify them and speak of intensities of white, as if white were an increasing or diminishing magnitude. This process of increase and diminution goes on, not in the white colour, but in the so-called external causes: the candles are increased or diminished in number, and the distances become shorter or longer. We combine the perception of this with the perception of white, and the latter is so far transformed as to become an acquired perception. The perception of quality is supposed to add to itself a perception of quantity. Hence results, according to Bergson, the so-called quantified sensations.

We have to point out, however, that this "acquired" perception involves not acquirement of, but lessening of meaning. In this process the original qualitative perception disappears. The quality does not add on quantity,

but is really supplanted. This is a point the significance of which Bergson does not realise, in spite of his statement (*ibid.*, p. 51) : " We thus substitute once more for the qualitative impression received by our consciousness, the quantitative interpretation given by our understanding." He speaks as though quantity was revealed under quality. What really happens is that quality concrete disappears, and quality abstract, that is, quantity, takes its place. It would be more correct to name this so-called " acquired " perception a substitute perception, a confused or disintegrated perception. It is a perception that moves on the way to quantity but never reaches it. However bare it be, it is still quality. And thus there is no dualism between quality and quantity, as Bergson supposes.

This " acquired " perception is reached by analysis. It is always a secondary or adventitious perception. The comparison of the external illuminating power, the candles, and of the distances involved leads to the filing down of the sensation, the fixing it and rendering it homogeneous. It takes away attention from the quality of the sensation. No more of the quality is grasped than is necessary for the given end.

One cannot measure the concrete by the abstract, the heterogeneous by the homogeneous. This is a principle which Bergson fully admits and applies in his characterisation of conscious states. In his subsequent polemic against psychophysics he refuses to admit the legitimacy of the use of mathematics in the study of conscious states. Conscious states cannot be quantified. What he fails to see is that the same truth holds of objective things so-called. External objects cannot be quantified any more than conscious states. To suppose that mathematics has rights in the awareness of external things is still to commit the fallacy of measuring the concrete by the abstract.

We reserve the question of the legitimacy of mathematics as an abstract science. Meanwhile we content ourselves with pointing out that when it ceases to be abstract,

when it is applied to the measurement of ordinary objects, it introduces falsehood, no less than it does when applied to conscious states. The notion of measuring one thing by another is false, even in the external world. Bergson speaks of superimposing one magnitude on another and thus measuring one thing by another. This is confounding the point of view of the mathematician with that of actual life. Superposition is a device, an artificial contrivance of the mathematician. It is unnecessary and impossible in concrete experience. Bergson assumes that the laws of mathematics are applicable to the so-called external world. He thus, against his own principles, makes the abstract the measure of the concrete. The result of this assumption that the laws of mathematics are objectively valid is to give a fictitious reality to the abstract. Mathematical law is hypostatised as magnitude. This is the source of the common notion uncritically adopted by Bergson that there is a quantity independent of quality. He does not see that this bare magnitude is just the abstract which he, in other places, condemns as corrupting consciousness. He does not see that the concrete and the abstract cannot stand together, and that in immediate consciousness the abstract disappears altogether. Bergson sets quality and quantity in opposition. We must, on the contrary, assimilate all so-called quantity to quality. Quantity is nothing positive. It is simply a depotentiation of quality.

Again, to make the abstract the measure of the concrete necessarily leads to the common assumption, also taken over without examination from common speech, that " external " things cause our " sensations ". How could quantity produce quality, or the abstract " cause " the concrete ? The magnitude, or external thing so-called, is only an aspect of the sensation or conscious state itself. It is the result of the analysis of the conscious state. Whenever quality is abstracted, consciousness sinks towards quantity. Original quality disappears, and the abstract, the so-called external cause, supervenes. That we perceive our sensations as

caused by " objects " or " things " is never an immediate fact of consciousness.

The Relation of Sensations to Things or So-called Causes of Sensations.

The " thing " is in common parlance held to be the type of the real, but it is in fact much less real, because more abstract, than sensation. The separation of things from sensation is an instance of the inertia of the human mind. Attention is given to the more homogeneous aspects of sensations, and the quality of these latter is regarded as an addendum to their quantity. Hence the " thing " comes to be regarded as the cause of sensation. In reality there are no " things," no external causes of our sensations. Bergson himself shows how sensations are solidified after the manner of external objects, and take on the hue and the behaviour of external things. Why, then, does he assume that objects exist independently, and " cause " sensations ? All the qualities of the so-called " thing " are borrowed from sensation and thought. What the thing is, is constituted by the mental processes of the percipient.

It is common to assert that, as we rise in the scale of living beings, the division between the percipient and " things " becomes greater, the gulf between man and his environment wider. On the contrary, we contend that, when the division between percipient and object is so far emphasised as to become an opposition, nay more, an actual hostility, it denotes a fall in the scale of life. It means that the living being is more and more materialised. The environment becomes a prison, the living being becomes subject to all the vicissitudes of the environment, and perishes like a physical thing. The extent to which a man allows his sensations to be occasioned by " things " is the measure of the extent to which his life falls under external necessity.

Bergson speaks of the convenience of this tendency to allow our sensations to be objectified. But this tendency sophisticates the mind and perverts our grasp of reality. When we speak of things as causing our sensations, we ignore our immediate experience and attend to only a narrow field of our consciousness. We rise in the scale of living beings only as we bridge the gulf between object and subject, and bring things back to the unity of the mind. Metaphysics has for function to reverse the tendency of sensations to turn into external objects, and to keep them fluid and in movement.

A thing is nothing but an effete sensation or a mechanical equivalent for a sensation, suitable for certain working purposes. The natural sciences cultivate this notion of an independent thing, and metaphysics has so far been misled as to lend her aid in enforcing it. Ward (" Realm of Ends," p 126), quoting Kant, writes : " All our judgments are at first merely perception-judgments ; they hold good simply for us, i.e. for our subjectivity. It is only subsequently that we give them a new reference, namely to an object, and intend that they shall hold good for us not only at the moment, but at all other times, and in like manner for all other persons." This is not the true method of reaching objectivity. These so-called " objective judgments " are further from truth than subjective perception-judgments. It is the business of metaphysics not to show how subjective sensations can become objective perceptions, but to bring to consciousness the basis of all so-called external perceptions in mind. If we succeeded in keeping our conscious states fluid, there would be no " things " ; there would not even be sensations as ordinarily understood. The ordinary division of the senses into five is a limitation, and presupposes abstraction. All our sensations are already corrupted by this dualistic taint,—the reference to so-called outside things.

The reference of sensations to things is always a perversion of experience. It involves the interpretation of the

higher in terms of the lower; it also involves the fallacy of the endless regress. The "thing" which is itself but a congeries of sensations demands a "cause" or interpretation, and so on indefinitely. The logical result of this procedure is seen in the difficulties in which psychology entangles itself. Natural science places the source of causation of sensations outside the body; psychology places it inside the body. The full absurdity is then realised; the brain engenders sensations, and we are left with all the difficulties of psycho-physical parallelism on our hands.

Bergson throughout his reasoning looks at mental states from the outside, i.e. from the point of view of bodies. He thinks that he is moving in direct immediate consciousness, whilst he is engaged in an effort of intellectual analysis. This intellectual effort must be completely distinguished from integration or intuition. We cannot clear up the contradiction in the notion of degrees of intensity of sensation by reducing it, part to quality and part to quantity. The method of separating intensity into two factors leaves us with an insoluble dualism. It is, moreover, irreconcilable with the view given later on that perceptions determine the lines that divide objects. What is this but to assert, not that external quantity determines sensations or imports quantity into sensations, but that sensation determines quantity? Magnitude is a dependent variable. Perception makes and unmakes quantity. So long as we remain strictly at the point of view of immediate perception, magnitude would never arise. The moments of perception are not magnitudes but qualitative distinctions. When consciousness follows the articulations of the real there is no quantity. But when consciousness abstracts, i.e. makes arbitrary divisions, then the illusion of quantity arises. Bergson says quantity must come from elsewhere, i.e. from the external world, and that it has nothing to do with sensation. But when he thus supposes quantity to be eliminated by a process of purification from sensations, these are found possessing, not merely intensity, but

quantity. While quantity is supposed to come in *ab extra*, it is actually found *intra*, inasmuch as he constantly speaks of them in the plural number. Bergson removes quantity out of conscious states, but he leaves number standing. But what is number but a quantity?

Bergson tries to show in his next chapter that there is a kind of number or multiplicity which is qualitative, and different from quantitative number or multiplicity. His arguments on this point will be fully weighed in due course. It suffices here to point out that Bergson assumes from the very start that the sensations can be numbered or added together, and thus renders his whole polemic against the quantification of sensations as practised by the psycho-physicist, futile. He assumes that his problem was given by the difficulty of understanding the phrase "intensity of sensation". But he ought to have begun his investigation by calling in question the use of the phrase "number of sensations". After denying quantity to the original emotion, Bergson assumes it in the subsidiary feelings. But the original emotion cannot have number in the shape of a multiplicity of subsidiary feelings outside it, without having at the same time number inside it, that is to say, intensity or interiorised quantity. Measurable intensity is denied of the original emotions. The quantitative intensity supposed to belong to them is declared to be a semblance. But if so, the multiplicity of simple states attached to the original emotion must be a semblance too. In assuming simple states at all, Bergson has already quantified consciousness. A "simple state"—and he gives the name of "simple state" to both the original emotion and the subsidiary feelings—is discrete; it is numerable and is therefore a quantity. In truth these "simple" states are not simple; they are the result of analysis. They are consonant only with the doctrine, which, in name, Bergson rejects, of the association of ideas, according to which all variety is external to the units concerned.

Bergson seems to define intensity of a feeling, at one time

by its isolation, by its power of engrossing the attention, and by its repulsion of other feelings, which would invade it and bring diversity into it ; at another time, by its comprehensiveness, by the weight of its influence over other feelings—the extent to which it leavens, permeates, and pervades these feelings—and by its power of associating with itself a multiplicity of subsidiary feelings or simple states. He defines intensity at one moment by singularity, at another moment, by multiplicity. What is common to these two positions, what pervades the whole reasoning, is the postulate that conscious states are atomic. If this postulate be denied, and Bergson does deny it, then it is impossible to speak of a " number of sensations ".

The Validity of Psycho-physics.

The first chapter of " The Immediate Deliverances of Consciousness " was intended to undermine the stability of the science of psycho-physics. But the argument is left pointless and inconclusive owing to the failure to expose and demolish the fundamental postulate of psycho-physics that sensations can be numbered. We must be more radical in our treatment of the question ; we must use to better purpose the weapons that he places in our hands, and push the arguments and considerations he places before us to their final conclusion. What is " given " in the immediate deliverances of consciousness is that there is no dualism between quality and quantity, that quality is all-sufficient and comprehensive, and includes in itself the other side of the supposed antithesis. Psychology, therefore—and psycho-physics is supposed to be a branch of psychology—must reject the postulate of the natural sciences that there are quantitative states or objects—a physical series, contrasted with the psychical series.

Psycho-physics tries to read the psychical series in terms of the physical series. But if the foregoing arguments are sound, we must do the reverse, we must interpret the

physical series as a psychical series. Instead of reducing intensity of sensation to quantity we must integrate quantity into intensity of sensation, and intensities into qualitative phases of consciousness. Psycho-physics is what comes about when psychology falls back on the other sciences to help solve its own special problems. Psychology ought to fill up the lacunæ left by the other sciences, and hence cannot fall back on the concepts of these sciences, any more than chemistry can fall back on the concept of physics. Psychology is not bound to take over the dualistic concepts, space, matter, and motion from the material sciences. To do so is to deny its own *raison d'être* and practically to commit suicide. On the contrary, the findings of psychology really make necessary a revision of the results of all the other natural sciences. Psycho-physics is an attempt to restore the connection between nature and mind after the natural sciences had torn the two apart, or, to speak more correctly, had ruptured their unity—for they never were apart. It proceeds on the basis and from the presuppositions of the natural sciences. It regards mind as almost passive, little better than an automatic recording machine. It seeks to quantify psychic states, and to explain mind by materialistic law.

The fallacy of psycho-physics consists in the assumption that there is an absolute external standard of magnitude or extensity according to which sensations can be measured, or with which they can be correlated. The relation between sensation and the so-called external stimulus or " cause " of the sensation is only an association of two sensations, one of which is illegitimately taken to be absolute and invariable. The objections already urged against the notion of a static sensation hold against the notion of a " stimulus ". Thus, the stimulus may be the light of a candle, and the corresponding sensation a certain brightness of colour. If we add a second candle, the sensation changes, and psycho-physics seeks to obtain a clue to the change of sensation by reference to the supposed fact that the candle-

power has been doubled. But how do we know that the candle-power has been doubled? Psycho-physics supposes that we have an awareness of an absolute fixed magnitude. But in point of fact we have not. In order to know that the candle-power is doubled, we must be able to measure the shapes of the two flames and see that they are equal. But sight gives only relative judgments. If we presumed to reach an absolute standard, we should be bound to refer from the sense of sight to another physical sense, and from this again to another, and so on indefinitely.

Furthermore, the power of a light depends not merely on the size of the flame, but also on its quality, as we find, e.g., when we compare a lighted jet of acetylene gas with a candle flame. In order, therefore, to prove that the candle-power was doubled, we should also be driven to a direct qualitative comparison of the lights of the two candles. That is to say, our judgment of quantity is at bottom a qualitative judgment.

This brings us to a point already adverted on. We cannot double, or otherwise quantify, concrete things. We can double only abstract units; concrete things are not units. Doubling is a process that can take place only in the strictly mathematical domain. Whenever we introduce number into concrete things we distort and pervert the character of these things. If mathematics is not applicable to ordinary objects, much less is it applicable to conscious states, which are still more concrete than external objects. Objects have a qualitative character which prevents them from being doubled, and the effect of the combination of concrete things can never be expressed mathematically. If this is true of things, it is still more true of sensations. Psycho-physics makes the false assumption, not only that external objects are absolutes, but also that sensations are absolutes. On the contrary, sensations are continually modified by the relations into which they enter. Granted that a sensation B could be fixed, it is never the same in its relation to any other supposed sensation A, as it is in its relation to sensation C.

Bergson completely breaks the force of his argument against psycho-physics by admitting quantity as an independent reality alongside of quality. These two, if they exist, must necessarily come into relation, and they are supposed to do so in the form of a quantitative stimulus causing a qualitative sensation. Now, so long as it is admitted that things cause sensation, we must have psycho-physics. Bergson assumes that the stimulus is external to the mind, and ought to be treated by itself, and not mixed up with the effect, the sensation. But if the stimulus is genuinely a cause of sensation, then it is only but right that it should be associated with or "introduced" into the sensation. And if, again, the cause is quantitative, psycho-physics has an opening and legitimate right of entry. In truth, the stimulus did not come into the effect or sensation from outside, but originally belonged to the sensation, and was subsequently abstracted from it.

The way to the solution of the psycho-physical problem is not to push the cause as far away as possible from the effect, and to make of them two independent realities having no likeness to each other, but to heal the wound made by this abstraction, to bring back quantity to quality, and not to allow the notion of quantity to emerge. The desired connection of psychology with the sciences is not to be got by way of psycho-physics, which reduces quality to magnitude, which materialises states of mind, but by way of a metaphysic which reverses the results of analysis and restores the uncorrupted deliverances of consciousness, and integrates the natural sciences with mind.

The radical rejection of psycho-physics involves also the invalidating of mathematics and the natural sciences. Psycho-physics is but the logical carrying out of the methods used in these sciences. Psycho-physics existed in germ when the colours of the spectrum, the Röntgen rays and sounds were analysed into numerable vibrations. If these methods are valid, then, as mind is one, they cannot but have some legitimate part to fill in the

domain of consciousness. The place and validity of psycho-physics cannot, therefore, be fully determined without an investigation of the validity of the natural sciences. It suffices here to point out that psycho-physics seems to be the *reductio ad absurdum* of the natural sciences. If it is shown that the attitude of psycho-physics to mind is impossible, it is thereby suggested that the attitude also of the natural sciences to mind is impossible. If the psycho-physical laws are mere arbitrary conventions, it is hinted that the laws of the natural sciences must be of the same kind. But if so, it follows that magnitudes cannot be measured. For magnitudes can only come into relation with us through psychic states. There is nothing peculiar in the attempt to measure psychic states. The material mind is only thereby carrying out its own maxims, moving down the incline on which it finds itself. If it is illegitimate to measure psychic states, the whole of the sciences of measurement are also in the last resort illegitimate. Bergson supposes that we know the magnitudes independently of mind, before we use them to measure psychic states. But there is no absolute magnitude. He is attempting to measure one series of mental states by reference to simpler. It is a process of abstraction or reduction. Psychology ought to annul the abstraction and bring all back to the psychic. All the natural sciences are dependent on psychological postulates, and when these psychological postulates are withdrawn, the natural sciences as we have them disappear.

Bergson gives an opening for psycho-physics by assuming as he does that whilst the stimulus increases (or decreases) gradually, the sensation changes discontinuously. This statement is at variance with the immediate deliverance of consciousness, and with the implications of his own argument elsewhere. In immediate consciousness, the change of sensation is continuous because qualitative. It is just because the false supposition is made that the flow of sensation can be interrupted, that it is thereby made

amenable to psycho-physical treatment. On the other hand, if by the gradual change which is attributed to the stimulus is meant, and without doubt this is what Bergson means, the quantitative change, that is, a mere addition or subtraction of mathematical units, then it has to be pointed out that relatively to the change of sensation such a change is discontinuous. Discontinuity is produced by abstraction, and it is the abstraction of the stimulus that produces the idea that sensation changes discontinuously. Apart from psycho-physics, the change is always continuous and qualitative. It is the postulate of psycho-physics that makes discontinuity. Bergson does not see that this discontinuity is no characteristic of sensation in immediate consciousness. And what is true of sensation is ultimately true of the stimulus also. In the stimulus there can be no increase or decrease which is not a change of quality. A stimulus is never a mere mathematical unit. It is only when it is regarded as a number that one can speak of a gradual change which is not at the same time a qualitative change. There is continuous qualitative change in both sensation and stimulus. But in the stimulus so-called there is less, and not, as Bergson supposes, more continuity.

When Bergson says that advantage is taken of the fact that sensations change discontinuously, to count them, and to bring them under the laws of mathematics, he misses the point. In the first place, it is not the case, as we have shown, that sensation changes discontinuously. This discontinuity is an artifice imposed on consciousness invented and manipulated by the psycho-physicist. It is a limitation imposed on consciousness from without; it is not primordial. It is the utilitarian needs of material life that have started this discontinuity, and psycho-physics has encouraged it.

In the second place, when psycho-physics thus "takes advantage" of the supposed discontinuity of sensations to quantify them, it is really taking mind at a disadvantage, it is disintegrating consciousness. Psycho-physics depends

on deadening sensitiveness to the deeper, or more remote aspects of experience, and concentrating attention on the more superficial aspects. It is totally wrong to qualify as inert the mind that does not readily follow and record all the variations of stimuli. If the mind did so, it would be reduced to a chaos or a quantitative homogeneity. It is the power of the mind that enables it to disregard external stimuli—and that all the more, that it, as Bergson says, has the power of comprising or compressing an infinite number of stimuli into unity. A sensation of light corresponds, he says, to billions of material vibrations. The logic of the psycho-physical method would be to have the mind record all the separate vibrations—to get sensations to correspond to all the analytic results of the material sciences. If mind were to follow this course, it would degenerate into a mere series of feelings. Psycho-physics always moves in analysis and abstraction. It depotentiates mind and impoverishes reality. If mind is to be revealed, then psychology must discard every trace of psycho-physics and return to the concrete-immediate consciousness.

The method of applying external stimuli in order to call forth reactions must be abandoned in psychology. The point of view of psychology should be that of perceiving qualitative change without external appliances. The act of applying stimuli to mind tends to quantify conscious states, and to destroy their quality. It results in conscious states like " the just perceptible difference " which is hardly other than mere change, wherein quality is at the vanishing point. This method superficialises consciousness, and makes it impossible to open up and reveal the treasures of mind.

If we are to hold the position that consciousness is qualitative change, then psycho-physics is impossible. There can be qualitative change only by the setting aside of all dualism, i.e. only when there is no stimulus applied to the mind. If psychology is to be a proper study of mind it must transcend the dualism of sensation and stimulus.

We must go further : If we are to remain in immediate consciousness, we shall also have to reject the ordinary natural science of psychology. For with the denial of quantity in consciousness must go along the denial of the validity of the abstract concept. Language implies homogeneity which is the same as quantity. We cannot speak of concrete or immediate consciousness as an interpenetration of sensations, emotions and ideas, in the manner that Bergson does. These are all abstract concepts. Consciousness, if it contains these, is already quantified. The application of psychology, at least of the psychology which we have hitherto been familiar with, to mind always impoverishes it.

We may state our conclusion as to the general validity of degrees of comparison as follows : One may argue against the legitimacy of comparisons from two points of view ; from that of agnosticism, holding that the world was a chaos, and everything unrelated to everything else. Of course from this point of view, assuming the atomic nature of reality, comparisons are impossible, or, if made at all, are only conventions, having no basis in real knowledge. Or again, one may argue against comparisons from the point of view of the infinite richness and variety of reality. The objection against comparisons is that they conceal the complexity of truth, and are abstractions. This is our point of view. Language is a defence against ignorance, but is never adequate to concrete experience. In relation to intuition it is a defect. Our objection to comparisons arises, not from an attitude of agnosticism, or from our inflicting any incapacity on the human mind, but from the possession of a knowledge that is deeper than words.

We can use comparisons only under the proviso that they are approximations, that they are human and do not hold of the absolute—do not imply the reality of the terms compared. Thus, in ordinary parlance we may say a thing is more cold or less hot, more dark or less bright, implying the equal reality of cold and heat, darkness and light. This

is looking at the matter from the naïve phenomenal point of view. To the metaphysical consciousness, light and darkness, heat and cold are not relative to each other. To intuition, light and its ethical antitype only are real. Owing to their supposed relativity to these, darkness and evil get a reality which does not belong to them. In natural science these questions are left aside. Degrees of reality only apply to the non-real, not to the absolute. Thus darkness and evil are subject to variation, and, therefore, to comparison. But the real is not subject to comparison. The real is without the possibility of change in a higher or lower degree. If we use language at all we cannot avoid using comparisons, but we must carefully note that such comparisons do not hold of the absolute.

CHAPTER II.

DURATION AND SPACE.

Can Conscious States be Spatialised ?—Space not prior to Number—Is Space Real ?—The Impenetrable Atom ?—The Concept of Time —Theories of Space—Local Signs—Succession in Time belongs to Duration, and not to the Outer World—The Theory of Motion —The Eleatic Problem—The Outer and Inner Self.

Can Conscious States be Spatialised ?

The connection of the argument of the second chapter of the " Immediate Deliverances of Consciousness " with that of the first chapter is very close, though not obvious at first sight. Let us recapitulate the result of the previous examination. Bergson, in his analysis of intensity, had instituted a dualism between quality and magnitude. We have treated this dualism in the same way that modern physicists tend to treat the old dualism between mass and energy or force. They do not regard mass and energy as separate entities, but rather tend to treat the mass as a function of the energy or velocity. Just as mass is only the limiting case of force, so magnitude is only the limiting or isolated case of quality. It is nothing in itself ; it is not different from quality. The notion of magnitude thus disappears, not, however, by being " reduced," but by being integrated with qualitative consciousness.

Our reasoning has been perfectly general. The concept of measurable quantity has been demolished, not merely as applied to conscious states, but also (it is to be carefully noted) as applied to so-called external things. Our reasoning

leads to an absolute denial of the existence of external magnitude. The argument of Bergson would lead us to conclude that the magnitudes which we find in our experience were independent of the thinking subject. So far is this from being the truth that they are more " subjective " than ordinary intensities of feeling, in the sense that they are more tainted with the analysis of the subject, and further removed from concrete consciousness. The fact of being non-measurable is not a disability of conscious states as compared to external things, supposed to be measurable, but rather the supposed measurability of external things is totally illusory. And when we see that this supposed exact measurement of external things is only arbitrary and relative, we are coming nearer to immediate consciousness.

We have therefore integrated measurable magnitude with non-measurable intensity of sensation, or of feeling. But we cannot stop here. Intensity is something positive in relation to magnitude ; but it is only a negation in relation to qualitative consciousness. Intensity carries within its bosom corruption due to the contrast with magnitude or quantity. When magnitude is seen to be illusion, then the old view of intensity is completely altered. The vague nuance of quantity to be found in intensity is a falsification of consciousness. Thus, when a sensation is said to be intense, this means that it is an isolated object of attention, and that the rest of consciousness is deformed. When we come to the concrete, intensity loses its meaning. Hence we do not say that thoughts or concepts possess intensity. But this is not because concepts lack something—intensity—which sensations have, but because they are more deeply interwoven with the whole texture of our life, and ramify more widely through consciousness. Sensations are intense because they are abstract. Just as all external magnitude collapsed into intensity of conscious states, so all intensity of conscious states collapses into qualitative consciousness.

The relation of quantity to intensity is similar to that of

the relation of distance to time, or of simultaneity to succession—quantity being the instantaneous which disappears as soon as intensity appears, and intensity being a form of what Bergson calls homogeneous time, implying a certain amount of duration or persistence. Thus, the investigation of intensity of conscious states naturally leads up to an investigation of the notion of Time or Duration. Now, if Bergson had proceeded by integrating abstractions and by seeking the immediate deliverance of consciousness, there would have been no difficulty in showing the true nature of Time. But we have to remember that Bergson has left the notion of quantity standing as an independent reality. If he had realised that quantity was an abstraction, and had proceeded to integrate it with consciousness, no new problem would have arisen. But assuming that quantity is a reality, he has no resource but to push his analysis of it still further, and, as he did before, to hypostatise the results of his analysis. He analyses quantity, and finds in it the intuition of an independent homogeneous space. What else there is in it he refers to inner experience, the form of which is Time. Thus the old antinomy between quality and quantity becomes the antinomy between Duration and Space.

When once this dualism has been set up there immediately rises a question analogous to the former, which was: Can sensations be quantified? The new form of this problem is: Can conscious states be spatialised? Can the processes of mind be represented by extended images, or by symbols drawn from the so-called external world? Can time, the form of consciousness, be made amenable to space, or brought under the forms of the external world?

Bergson proceeds in his treatment of the notion of time exactly as he has done in his treatment of the notion of intensity. He finds time to be, itself, an inharmonious or self-contradictory conception, and he proposes to do away with the difficulties of the notion of time by separating it into two pure elements, namely, duration and space.

Duration is the flow of conscious states, pure succession without any static or stable element, movement without stoppage or halting-place, inner complexity without external juxtaposition of parts; it is non-spatial and non-quantitative, holds only of consciousness, and not of the external world, or of any object in the external world. Space, on the other hand, is a "homogeneous medium," which permits of things being held apart, wherein there is no change, everything being given outside one another, momentarily appearing, and instantly disappearing: here succession and continuity are totally absent.

When we scrutinise Bergson's argument, we find, as we found in our examination of the notion of intensity, that the contradiction which he finds in the notion of "time" appears in each of the two supposed pure components, duration and space. "Time" is, according to Bergson, a contradiction in terms. It is homogeneous or spatialised duration. But when we examine the notions of pure space and pure duration of Bergson, we find that he surreptitiously introduces into the former the notion of succession in time; and that similarly his pure duration is homogeneous, i.e. is infected with spatial elements.

Space not prior to Number.

Bergson spends a great deal of effort and, as we believe, vain effort, in establishing the independence of space. He does so by trying to show that we cannot count or number things without an intuition of space. Before proceeding to examine his statements on this subject, we have to point out that Bergson assumes here the legitimacy of the process of counting or numbering external things, as he had previously assumed, unconsciously, the legitimacy of counting conscious states. We have called in question this latter assumption, and Bergson retracts it later on. We have shown that logically, if it is impossible to count or quantify conscious states, it is also impossible to number the objects

of the so-called external world. If this argument is allowed then the basis for the notion of an independent space is radically destroyed. But let us waive this point at present. We hope to show :—

First, that even if we grant the possibility of numbering "things," still this in no wise implies, as Bergson argues, the intuition of a homogeneous space.

Second, that what he calls space is either a nonentity, or else implies qualitative consciousness—succession in time.

The argument by which Bergson tries to prove that the use of number implies the intuition of homogeneous space is so confused and forced, and so difficult to synopsise, that we shall be compelled to quote extensively, and add a comment and criticism to each successive statement. He begins by saying (p. 76 of "Time and Free-will") : "It is not enough to say that number is a collection of units : we must add that these units are identical with one another, or at least that they are assumed to be identical when they are counted." The qualification which Bergson here "adds" to the ordinary notion that number is a collection of units is false. We never assume the units to be identical, or, as he says at the conclusion of the paragraph, to be "absolutely alike". In making an arithmetical enumeration of a flock of sheep, however much we may abstract from the sizes, shapes, and colours of the sheep, we never reach bare identity of units. If we did abstract till we reached bare identity the units would not remain separate, they would vanish in simple homogeneity, in which there would be no possibility of counting. Bergson admits this when he says that the "units must be somehow distinct from one another, since otherwise they would merge into a single unit". This renders null and void his previous statement that the units are "absolutely alike". Why qualify the statement that number is a collection of identical units, by again adding a contradictory qualification that the units must be distinct from one another? Why state

that the units are alike and immediately sublate this dictum by the statement that the units must be unlike ?

The objection here is to the piecemeal and analytic mode of setting down abstractions without reconciling them. For it must be pointed out that here Bergson does not see that the statement that the units must be distinct destroys the statement that they must be identical. He holds both statements at the same time. Here again we have the assumption of the " identical atom " which is unaffected by the relations into which it enters. It is in this notion of distinctionless identity that we have the origin of the idea of homogeneous space.

Yet strangely enough—and than this nothing more shows his confusion of thought—Bergson appears to think that it is through space that distinction is brought into the units ; through space that the units are held apart. He argues as if space prevented the units from merging into a single unit.

Let us point out first of all that if there were no distinction in the units, they would not merge as he assumes in a single unit ; they would vanish entirely. A single unit could not be, or be perceived, by itself. In the second place, it is not space that holds the units apart, so as to be numerable ; but rather, space is the result of the tendency to override all distinctions. Space cannot supply distinctions or help in the formation of distinctions.

Bergson goes on : " Let us assume that all the sheep in the flock are identical ; they differ at least by the position they occupy in space, etc." Here it has to be pointed out that the addition of the phrase " in space " to the word " position " begs the whole question. There may be " position " without " space," that is to say, such a relation among the sheep as to enable them to be counted apart from space. All that is necessary in order that the sheep should be counted is that some qualitative distinctions should remain amongst them. That this qualitative distinction should be spatial is arbitrary assumption.

The presupposition of number is not space, or an "intuition" of space, but some degree of activity of mind, however low. Yet this is what Bergson refuses to see. For he goes on to make the extraordinary statement (*ibid.*, p. 77): "If we picture to ourselves each of the sheep in the flock in succession and separately, we shall never have to do with more than a single sheep". If you have succession at all, there must be at least two sheep. The foregoing statement would only be true if there was no succession at all, i.e. if there was absolute contingency, if, having counted one, we immediately forgot what we had counted. But the hypothesis is inconceivable. We could not even count "one" on these conditions.

No less extraordinary is his next statement: "In order that the number should go on increasing in proportion as we advance, we must retain the successive images and set them alongside each of the new units which we picture to ourselves; now, it is in space that such a juxtaposition takes place and not in pure duration." Here Bergson assumes that if the numbering does not take place in pure duration, it must take place in space. But this is not the only alternative. Clear it is, in spite of the use of the question-begging spatial metaphor, "juxtaposition," that this process goes on in a consciousness which dures in some sort, not in space. Bergson draws a radical distinction between what he calls pure duration and homogeneous spatialised time. But it is arbitrary assumption that what is not in pure duration must be in space. The "time" in which this juxtaposition takes place, however contaminated with spatial elements, is still time of some sort. How could we retain the "successive images" except in a consciousness which dures in time? The view here given that we can retain the "successive images" in space alone is in direct contradiction to his statement afterwards made and insisted on, that in space there is only the instantaneous, never succession. Here, then, we see that he has not got pure space at all. His space contains temporal elements.

Again, Bergson continues: "In fact, it will be easily granted that counting material objects means thinking all these objects together, thereby leaving them in space." If counting means "thinking together," and this we readily admit, then this must be in time and not in space. Counting objects means not "leaving them in space," but exactly the opposite, taking them out of space, or denying their supposed spatiality. Number—however abstract it may be, i.e. however bare it may be of quality—is still apart from space and is in time. Bergson's idea is that number is inseparable from a spatial image, or must be spatialised if it is to be number at all. Our contention is that images are never absolutely spatialised, and that though numbering be a process of abstracting, and therefore tends towards spatiality, yet it never reaches space.

Bergson next raises the question (p. 77): "But does this intuition of space accompany every idea of number, even of an abstract number?" He seems to think that it would be more difficult to prove that the intuition of space was involved in the use of abstract number, than in the use of concrete number. Whereas it ought to be plain that the so-called intuition of space is more closely associated with abstract number than with concrete number. The plain man never has an intuition of space; he deals with concrete numbers or things, sense-objects. Just in so far as things are concrete, i.e. have quality, they are out of space. It is the mathematician who deals with abstract number, who has invented the "intuition" of space, and thus planted a stumbling-block for the unwary metaphysician, who is apt to take over the ideas of the mathematician and natural scientist at the value affixed on them by their inventors. The way by which the notion of space has been reached is clear. The mathematician abstracts from the qualities of objects until he reaches objects almost but not quite qualityless, i.e. numbers. Let him carry the process of abstraction one step further; let him abstract number itself, and he will have space. The phrase "intuition of

space" is misleading. Space is not an intuition but its opposite; it is the final result of the process of abstraction, it is the hypostasis of nothing.

Is Space Real?

Bergson shows how in the development of mathematical concepts, or of the science of number, we first begin with obvious sense-images, then drop them and substitute fainter images, such as balls; discard them in their turn, and substitute still fainter images, such as points, until we reach finally the most attenuated images of all, namely, figures such as 7 or 8. For rapid calculation we need only mathematical symbols, and must disburden ourselves of the more concrete images drawn from the sense world. Now, where in all this development does space come in? Concrete objects are furthest away from space, and in moving towards abstract numbers we are not, as Bergson supposes, going away from space, but coming nearer to it. But space is never actual. It is only a conceptual limit. The notion of space is not even necessary for the mathematician, much less for ordinary practical life.

Bergson says (p. 78): "But as soon as we wish to picture *number* to ourselves, and not merely figures or words, we are compelled to have recourse to an extended image." This sentence is a μεταβασος εἰς ἀλλογενος, a shifting of the universe of discourse. The point under investigation is the nature not of pictured number, but simply of mathematical number. To picture number is to reverse the process of numbering. The mathematician could not move a step if he were to be continually picturing number. It is his special business to ignore the pictorial aspects of the world, to abstract as much as possible from the concrete. It is his business to keep as close to empty space as possible without, however, losing himself in it. To picture numbers is to take them away from space.

Numbers do not need to be pictured or made more concrete than they are, at least if they are to be useful for the mathematician. They are already pictured to some degree by means of symbols, such as figures and lines; and it is these attenuated symbols that save them from utter unreality. So-called abstract numbers are never wholly abstract, i.e. totally deprived of quality. Bergson assumes that number can only be realised or pictured in space. Our point is that number can only be realised or pictured by keeping out of space. When Bergson says, therefore, that if we wish to picture number we must have recourse to an extended image, he begs the whole question, the question-begging epithet being "extended" as applied to "image," and this whether "image" be conceived as mental or as a "thing". When we wish to picture number, we must undoubtedly have recourse to an image, i.e. to something possessing quality. For what picture can you have without quality? But there is no thing pictorial, no image in space. An extended image is an absurdity, a contradiction in terms. Space is qualityless, and offers nothing to be placed in an image. If we want to picture number we must go, not to space, but to non-extended images. If the so-called abstract numbers are not spatial, much less so are pictured numbers.

Bergson then goes on to say (p. 78), that "the habit we have fallen into of counting in time rather than in space seems to lead to misunderstanding". But surely counting in space is not natural and primordial, as he implies, whilst counting in time is secondary and a perversion of counting in space. The exact opposite is the case. How otherwise could we count than in time? Space is, as Bergson holds, a deformation of immediate consciousness. Does it not follow that "counting in space" is a secondary and acquired habit?

Bergson proceeds (p. 79): "For though we reach a sum by taking into account a succession of different terms, yet it is necessary that each of these terms should remain when

we pass to the following, and should wait, so to speak, to be added to others ; how could it wait, if it were nothing but an instant of duration ? And where could it wait if we did not localise it in space ? " Here, again, we meet the question-begging phrase, " in space "—as if localisation necessarily involved space. " Locality " is not the same thing as space. Locality is concrete, involves qualitative distinction. To localise a thing is to negate space, and can occur no otherwise than in time-consciousness. Here, when Bergson thinks he is speaking of pure space, he is all the time introducing surreptitiously temporal elements. If the terms of an arithmetic series have to wait at all, it cannot be in space, but only in duration. Bergson assumes that space is an entity lying alongside of duration, and that we need the assistance of space in order to think, whereas all thinking, at least metaphysical thinking, is an attempt to avoid spatialisation, and to keep close to concrete consciousness.

Furthermore, whilst Bergson gives to his supposed pure space the qualities of time, or of duration of some sort, he illegitimately conceives duration as a kind of space, as when he uses the phrase " instant of duration ". What he means by these " instants of duration " is seen further on where he speaks of the moments of duration as having " vanished for ever," whilst leaving behind lasting " traces " in space, in their passage through it. Bergson here implies that pure duration is nothing but a bare series of events—not even a succession—in which each item is forgotten as soon as perceived.

This would make duration to be nothing but absolute contingency, and there is too much reason to fear if we are to judge from many passages, that Bergson's conception of free-will is nothing but contingency. We must reverse Bergson's nomenclature altogether, and must hold that " moments which vanish for ever " must be in space and not in time ; and, on the other hand, that if they leave lasting traces behind, then they must be in time and not in space, as Bergson assumes.

Space can preserve lasting traces of nothing. It is absolutely qualityless. Like the primeval chaos, it is without form and void. It cannot be grasped in a notion, nor be perceived, because it is nothing. In order to approach an idea of it, we must go back to number, which in its bare symbols still manifests the concrete. Number does not imply space, nor need the help of space to realise an image of itself. On the contrary, space being imageless must go to number for an image, and space can then only be reached by abstracting from number.

But again, number itself is an abstraction which, taken by itself, always leads to contradiction. It must seek always correction and realisation in the concrete. It presupposes this concrete, and not space which is a mere fetish. Number implies so-called external reality, the world of sense-objects. But we must not confound this supposed external reality with space. Number implies so-called external reality because the latter is more concrete, i.e. nearer immediate consciousness. Just for this very reason, because so-called external reality is more concrete, number does not apply to it any more than it applies to so-called internal reality—states of consciousness. Mathematical concepts do not apply to, or legislate for, anything real; they have no validity outside their own narrow sphere. Visible objects, and visual images do not in any way imply number. We have visible images and objects apart from number; the application of number perverts objects and images alike. On the contrary, number implies *a world of objects* or images, as that to which it must be brought back, if it is to be properly understood.

Bergson's notion that there are two kinds of multiplicity, the one holding of conscious states, and the other, properly numerical, holding of external things, is based on the notion that it is valid to apply number to external things. This latter idea we must contest. Sense objects are qualitative, and elude number. To apply number to them perverts them. In relation to objects, numbers are symbolical,

though not so symbolical as they are in relation to conscious states. Number is applicable only to matter in its grossest form, i.e. most attenuated in quality and form, nearest to homogeneous space. In fact, number is nothing but gross matter, i.e. lines and figures. If the materiality of an object is equivalent to its spatiality, then numbers are more material than so-called external objects. Numbers are more " extended " than objects because they are nearer space, more abstract. To be abstract and to be extended is one and the same thing.

It ought to be pointed out that matter, as ordinarily conceived, which is often taken as the type of the concrete, is abstract. Matter is spatialised quality. It is a bastard conception—to borrow a phrase of Bergson—generated from a truth and a fiction, namely, quality and space. Bergson says (*ibid.*, p. 98) : " We may therefore surmise that time, conceived under the form of a homogeneous medium, is some spurious concept, due to the trespassing of the idea of space upon the field of pure consciousness." This is exactly what matter is. Homogeneous time and matter are alike.

We may remark here in passing that it is strange that Bergson, after criticising and rejecting the notion of homogeneous time should in his next book, " Matter and Memory," accept without criticism the notion of " matter," thus burdening his philosophy with an irrationality which he is unable to expel, and which sets him insoluble problems at every fresh movement of his thought. Moreover, to speak of homogeneous time as "spurious" is surely not open to him, seeing that he allows space to be a reality. Only he who holds the illusoriness of space is at liberty to use this epithet. Bergson does not see that after separating space from duration, purifying the latter, he was bound to discard space as unreal. If space is a reality no less than duration, why should they not come together, and why should one seek to dissociate them if they are actually, as is averred, found together in our experience ? Bergson has

shown no ground for holding that homogeneous time, which he asserts to be absolutely necessary for social life, is not a legitimate concept. The spuriousness which he attributes to homogeneous time more emphatically belongs to "matter". When we try to explain "matter," i.e. to bring it back to the concrete, we find that its space or spatiality disappears, and it falls wholly within time. Matter always comes back to a content of consciousness.

The Impenetrable Atom?

The problem of matter naturally leads to the question of the nature of the so-called atom, and this is the topic which Bergson broaches in his next speculations on the impenetrability of matter. Just as he assumes the reality of space, so also he assumes the reality of the impenetrable atom. He says that it is impossible for us to "picture" two bodies as occupying the same place at the same time. Strangely enough, whilst his proof of the impenetrability of matter, of the reality of the atom, seems thus to be an appeal to immediate concrete experience, he says (p. 88); "In reality, it is not a physical but a logical necessity which attaches to the proposition 'Two bodies cannot occupy the same place at the same time'." It is not very apparent why an appeal to immediate experience should be at the same time bound up with "logic," especially when this logic turns out to be the logic of abstract mathematics. If by "logic," however, be meant a metaphysically binding necessity, then nothing could be further from the truth than the supposition of the impenetrability of matter. Here, again, Bergson falls into the common error of supposing that abstractions are binding on the concrete. So-called mathematical necessity is the furthest removed from real concrete metaphysical necessity. Mathematical necessity cannot be imposed even on physical nature, much less on concrete mind or immediate experience. The supposed appeal to immediate experience to prove the

impenetrability of matter is entire make-believe. In picture-thinking there are no such things as bodies at all, and Bergson in assuming bodies has assumed the very point at issue, that matter is impenetrable and that atoms exist.

Bergson's cardinal assumption is that impenetrability is introduced into the external world by mathematics; in other words, that numbers themselves are impenetrable. He assumes that numbers are atoms, just as he had previously assumed that numbers are spatial. But the same objections lie against the impenetrability of numbers as lie against their spatiality. In mathematics, in the sphere of number, the operator abstracts from all but the barest quality. This tends to isolate the objects which we call numbers, and to give them appearance of impenetrability. But even the mathematician cannot carry this process to its utmost limit. Just as numbers approach space but never reach it, so they approach impenetrability but never reach it. If numbers were really impenetrable it would be impossible to add one to one. Number certainly gives the extreme type of relations purely external, gives the best example of the isolated self-related atom; but none the less the units must combine (units imply "unite"); must give up their impenetrability before they can exercise the slightest function.

Still less than the mathematician, can the physicist admit "impenetrability" in the objects with which he deals. It is impossible to begin to theorise about "impenetrable" atoms without making them influence, i.e. penetrate one another. There can be no external relations without internal change. The lowest grade of matter shows a certain amount of involution, i.e. of qualitative diversity quite apart from space. Bergson weakens his case by admitting that the senses cannot prove impenetrability. It results from this admission that the notion of impenetrability, unless it be claimed to be an "intuition," falls to the level of a mere hypothesis. It is not logic, not even mathe-

matical logic, much less the logic of the natural sciences, nor any other kind of logic that affirms impenetrability of anything. Bergson's own logic denies it. If impenetrability were a real law of the mind, how could the mind apply it to one class of objects named material, and not to another, namely, states of consciousness. Impenetrability is not, as Bergson theorises, the quality of material objects to which number is applicable—in distinction from immaterial states to which number is inapplicable. Impenetrability does not differentiate the material from the immaterial. The idea of impenetrability arises from an erroneous conception of the meaning of identity. So-called impenetrability, or more properly, identity, is the bare logical form of every content of consciousness, whether termed matter or mental state. Impenetrability properly understood is meant not to isolate a " thing " or " state " from union or contact with other things or states which have an equal right to existence, but to protect it from being engulfed in space. Apart from space things may penetrate one another to any extent without introducing confusion.

Bergson is anxious to prove the impenetrability of number, and thence by inference, of matter, in order that he may thus find an easy way of support for his primary proposition that number requires the intuition of space. But it is plain that the impenetrability of number or of the atom, so far from supporting this thesis, disproves it. Impenetrability never implies space. It rather exists as a defence or barrier against space. We assert number or the atom for the very purpose of denying space. When Bergson repeats with approval the common saying : " Two bodies cannot occupy the same place at the same time," he commits the fallacy of confounding " place " with " space," as previously he had confounded " locality " with " space ". " Place " always implies the concrete, some definite content of consciousness. The epithet " same " as applied to space is redundant, as space is never different. Two bodies cannot occupy the " same " space for the simple

reason that no body, i.e. nothing possessing quality can be in space. On the other hand, if we mean by " place " not " space," but definite qualitative relation, then we have the right to say that all reality is in one place—or, to put it in the language of theology, that God is omnipresent.

Bergson speaks as if the properties of number were prior to the properties of matter. Hence he infers from the impenetrability of number the impenetrability of matter. But the concrete is always prior to the abstract. We must pursue the reverse method from that of Bergson. We must correct the abstraction of number by reference to so-called " matter," and not impose the abstractness of number upon " matter ". Number implies not space but " matter," and " matter " in turn implies, not space, but content of consciousness, duration.

Space and the impenetrable atom, as such complementary abstractions necessarily do, interchange their properties. Thus as the impenetrable atom is so devoid of quality as to be little different from a mere bounded section of space, so space itself, in the form of a single homogeneous plenum, has been conceived as of the nature of a single exclusive atom. But here, again, we cannot move a step without discarding the notion of impenetrability, and without supposing the plenum, space broken or differentiated by vortices, lines or vibrations. Impenetrability is an illusory concept closely connected with the notion of absolute contingency. The impenetrable atom is the hypostasis of the " instant of duration " which vanishes without leaving a trace behind.

When we come back to immediate consciousness, the atoms are found to be in duration in the time-consciousness, and not in space. Bergson speaks as if, whilst the process of numbering implies duration, the objects which we count do not imply duration. This is an error. All so-called sense-objects are in duration. The mathematician *qua* mathematician does not count these concrete objects. He simply isolates parts of objects for his own purposes, or invents objects which he calls numbers. There is a strong

realistic tendency, begetting manifold illusions, to allow the numbers to go outside mind, to objectify them, that is, to consider the laws of mathematics as valid in some sphere apart from mind. But none the less the numbers, as well as the science of number, remain within duration of some sort. The objects of mathematics cannot be separated from its laws, which admittedly imply duration. The same truth applies still more to atoms, the objects of the science of physics. They too, like numbers, are within mind, and imply duration. Ordinary sense-objects, more emphatically imply duration. They do not imply the atoms or numbers, much less space, and it is for this reason that mathematics and physics, which give the laws of number and of atoms, have no validity in concrete life. On the contrary, number and the atom imply the objects of common life, and must be interpreted and illuminated by reference to them.

One self-contradiction leads to another. As a homogeneous, absolutely penetrable, totally unresisting medium is impossible consistently to conceive, it leads to a natural reaction which takes the form of setting up an impermeable impenetrable matter as the counterpart of, or foil to, homogeneous space. And of this "matter" it is equally impossible to form a consistent notion. Whenever we come to the faintest discernible quality, we are done with both homogeneous space and impenetrable matter. Material atoms are generally conceived as all possessing one quality, whether this be called mass, weight, density, resistance, or impenetrability, and to be all alike in possessing this one quality, which we may generalise as quantity or magnitude. But to suppose the atoms to be all alike is impossible. If we count space as nought (0), and the first atom as the unit 1, then any other atom must be qualified as different. It must differ so far as to count as number 2. Thus we get the series of natural numbers, the beginning of the science of mathematics. Number negates, not merely homogeneous space, but also homogeneous quantity, bare matter, or the impenetrable atom. If the atom were really

impenetrable, it would exclude everything else, there would be but one atom. On this basis we should never get past number one ; we should never get number two ; we should never have a beginning of mathematics at all. Thus, number itself destroys the dualism of space and the impenetrable atom.

Quantity is the atom. Sense-objects cannot take the form of quantity. To quantify them would be to turn them into atoms, i.e. to destroy them altogether. How much more absurd it is to suppose that mental states can be quantified ! We properly regard it as absurd to suppose that states of consciousness should be turned into units quantified and measured. But the absurdity, though less apparent, holds in the application of the same procedure to physical things. Hence numerability cannot be made a touchstone whereby to distinguish " external " things from conscious states. There are not two kinds of multiplicity as Bergson asserts, the one quantitative, the other qualitative ; all quantitative multiplicity is but an abstract aspect of qualitative manifoldness.

As mind it needs not the help of number or quantity or of the sciences that profess to deal with them, so it needs not the aid of space. In mind each quality can find room for every other quality, or—what amounts to the same thing—there can be as many spaces as qualities. Mind can form an infinite variety of spaces. And this is what the mathematicians have already found out. Similarly, there is not one uniform quantitative multiplicity, as Bergson supposes, standing in contrast with qualitative multiplicity. There are an infinite variety of multiplicities.

It has to be remembered that the spaces of the mathematicians are not " pure "—they are always certain combinations of qualities. To ask which space is " real " is useless. Each individual may be said to have his own space. What his space is depends on the quality of his experience. Taken by itself, space is nothing. The fact that concrete mind dispenses with so-called real or outer space is a

consequence of the principle of immediate consciousness, namely, that concrete mind dispenses with mental, or inner, space, i.e. abstraction. It rigidly eschews generalisations and symbols.

The Concept of Time.

Bergson's theory of time is, to put it shortly, this: The mind cannot introduce order into the contents of consciousness without the help of outward space. It projects psychical states into space in order that there they may be transformed from a vague multiplicity into a multiplicity of clear-cut distinctions and easily manipulated parts. The mind having no other means of manifesting or revealing itself is obliged to form spatial symbols—the most notable and familiar example of which is language, spoken and written. But, as the mind cannot project its contents into space without experiencing the retroactive working of space upon itself, the use of spatial symbols tends to alter or deform the contents of the mind, and to obscure our apprehension of the processes of mind. There arises thus a secondary consciousness—a blurred image of original consciousness—which is homogeneous time. Hence he proposes to discard the word "time" as the term for the form of our conscious or inner experience, and to put in its place the word "duration". Consciousness, properly speaking, is not in time, which he holds to be a kind of space, but consciousness "dures" or "endures". The consciousness which "dures" has nothing to do with space.

The verb "project" which Bergson frequently employs, is a misleading spatial metaphor inapplicable to conscious processes. It is a question-begging term, which assumes the very theory which it is used to explain. It contains within itself the notion that space is outward and real. This is the very question in dispute. It may be objected that when we speak of "abstracting," "analysing" or "dividing" we are also using spatial metaphors. To this

we reply that at least the material associations of these later terms have been considerably fined down. At any rate there is nothing to be gained by substituting the term " project " for the terms " abstract " or " analyse," which is all that the first term means. If we mean more, we must be on our guard against allowing ourselves to be so far imposed upon by the letter of a striking metaphor, as to construct a metaphysical theory out of it.

Again, the notion is false that we project psychical states in order to form a distinct multiplicity. The infinite diversity of mind exists, and that too in greater distinctness, before it is " projected ". The result of the projection of psychical states is to put in place of a concrete variety, a relative homogeneity which is discrete. Discreteness and distinctness are different, the one is abstract, the other concrete. Projection leads to discreteness which is equivalent to homogeneity. Bergson says that " time understood in the sense of a medium, in which we make distinctions and count, is nothing but space ". But in so far as we think in the medium of space, all distinctions disappear. To assume a space-medium is totally unnecessary. The correct way of putting the matter is : In so far as abstraction or " projection " is allowed, the supposed space medium " appears ". To hypostatise this space medium and to attribute projection or abstraction to its influence is a piece of naïve picture-thinking. It is like attributing our personal faults to an abstraction like original sin. Nay, worse—it is like personifying sin itself as the devil, or the world-spirit, and making him responsible for all our perversions. The supposed alliance between space and consciousness (which is supposed to engender time) is fictitious ; and equally fictitious is the supposed retroactive influence of space on consciousness, corrupting it. Why should spatial symbols in any way affect concrete mind ? If, e.g., I project (to use the Bergsonian phrase) a solid on to a piece of white paper, i.e. if I make a drawing of it, I must represent some of the right angles of the solid

as acute or obtuse angles. Does this deformation on paper in any way alter the outlines of the solid? Evidently not. Similarly, concrete mind remains unaffected by abstraction or projection. Moreover, we can use this illustration to point out that just as the solid does not project itself on to the paper, does not of itself reduce itself from three dimensions to two dimensions, so concrete mind does not project itself, or engage in any process of abstraction. Analysis or projection always goes on apart from concrete mind. The corruption of consciousness is due, not to retroactive influence of an outer space, but to analysis. To say that space deforms consciousness would be the same as to assert that the white paper flattened the solid into a plane surface and turned its right angles into acute or obtuse angles.

Theories of Space.

The current views of Space can be conveniently graded as follows, according to the degree in which they attribute outward and independent reality to it :—

First, there is the view derived from Kant, though it is questionable whether it can be really traced back to him in the form in which Bergson formulates it : that space is an independent reality, coeval with sensations, into which sensations are fitted; a reality which requires for its apprehension an *a priori* form of sensibility, or a special intuition, or active operation of mind.

Second, there is the view that space is a primordial quality of certain sensations or conscious states, which always goes along with them. Space is no longer considered a reality known in a special way, but simply as a quality of psychic states known in the same way as other contents of consciousness, and contributing thus to our view of the external world. It is not an independent real, but an abstract quality of the real.

Third, there is the view of Bain and the empiricists that space is neither a reality nor a primitive quality of mind; that it is an acquired characteristic of sensations originally inextensive. Space is simply an order of sensations; it is secondary; it is a product of development. This view still further accentuates the tendency to undermine the basis of the notion of space, and paves the way for:

Fourth, the view which seems to be the result of the foregoing reflections,—that space is not even an acquired characteristic of conscious states, that it is a non-reality, a conceptual limit of the analytic consciousness. Space denotes, not a characteristic acquired, but the absence of all characteristics. Space cannot be "added" to our sensations, as all the other theories more or less assume, by the activity of mind. On the contrary, space results from the inertia of mind. The illusion of extension arises from abolishing, or ignoring, the variety of conscious contents, from the displacement of continuous concrete heterogeneity by a discrete relative homogeneity.

Bergson's view of space is of the type of the first, adumbrated above, derived from Kant. But his own statements in defence of it are so inconsistent and confused that they amount to a *reductio ad absurdum* of the realistic view of space. He says (p. 94 f.) that space "consists essentially in the intuition, or rather the conception, of an empty homogeneous medium". But we cannot find any consistency between this and his very next statement: "For it is scarcely possible to give any other definition of space; space is what enables us to distinguish a number of identical and simultaneous sensations from one another; it is thus a principle of differentiation other than that of qualitative differentiation." Furthermore, this statement is itself unintelligible. If sensations are identical and simultaneous, how can they be distinguished? When Bergson says that space is a principle of differentiation, he surreptitiously introduces into space the notion of number. Number is obviously a principle of differentiation, but it can only be

so because it is something other than space. Again, it can be a principle of differentiation only because it is qualitative. And to speak of space as a reality without quality is meaningless. We have contended that space had no quality, and if so, it cannot be anything but non-reality. Bergson sees himself, and refers to the objection to the notion of simultaneous and identical sensations. Yet he reiterates his position " that we must have a clear idea of a homogeneous medium, i.e. of a simultaneity of terms which, though identical in quality, are yet distinct from one another ". Such " terms " are totally inconceivable. So long as there are terms at all, they must be qualitatively distinct, i.e. they must be at least number. Number has sufficient quality to be distinguished from any supposed homogeneous medium.

Local Signs.

The notion that space is a principle of differentiation is equivalent to the theory—accepted and endorsed by Bergson—of local signs, viz. that every point of space has its own quality, every direction in space its own peculiar shade or colouring of feeling, by which it is known or perceived. What, then, are these " local signs " ? They are supposed to be particulars of sensations so faintly discernible that we generally overlook them. But when we search our consciousness for signs or sensations which may properly be called " local " in the same sense that we call certain sensations " touch," and others " taste," and others " smell," we search in vain. The local signs are therefore a mere hypothesis, nay, rather a myth. We cannot definitely point to these supposed space-sensations. Either, then, these so-called local signs must be simply sensationless space, or the barest quality of consciousness, i.e. abstract numbers. They can emerge from nonentity only by taking form as abstract numbers. These signs or sensations are nothing but the points, figures, and lines of

the mathematician; they are to be sought, not in the obscure and muddy depths of sense, but amongst the most highly-rarified abstractions.

It now becomes clear that there is nothing particularly spatial about these "local" signs. They are certainly local, but only abstractly so. What is characteristic of them is not their reference to any particular place or person, but their extreme generality. The local sensations are the barest of abstractions. Moreover, locality, when most specific, becomes person. There is no locality apart from personality. These local signs, therefore, are not in space, but in time. All local signs when brought back to immediate consciousness attach to particular personalities. The theory of an absolute independent space full of local-sign differences is a fiction. These local signs are simply the counterpart in inner experience of the impenetrable atoms of outer experience, and the same objections that lie against the atoms lie against the local signs. Space does not possess local signs; analytic consciousness possesses them. They have no more of the concrete than number. To suppose that each sensation had its own peculiar shading which leads us to its proper place in space, or to suppose that each point in space had its own particular quality which directed us to its position, is absurd. It is to overlook the fact that we already know perfectly well "locality" before we know the so-called local signs. We know locality through the concrete relations of personalities. We cannot reach definite locality through these so-called "local" signs, bare symbols, which abstract from locality.

Let us observe the procedure of the mathematician. When he places a point on the blackboard, the point has no sign local, independent of what the mathematician gives to it. It is not the point that gives a sign to the mathematician, but it is the mathematician that gives the sign to the point, and can make it receptive of an infinite variety of meanings or signs. The local signs are not spatial but

temporal, not aspects of externality, but moments of consciousness. They arise by way of abstraction from mind, and that, too, carried to its extreme limit. Bergson says that "men have a special faculty of perceiving or conceiving a space without quality". This is not the faculty of "abstraction". Waiving the question whether abstraction can be called a faculty at all, and not rather a disability of the mind, we have only to point out that a space without quality cannot possibly be either perceived or conceived.

Bergson makes no use of his concept of a homogeneous space. Whenever in the argument space has to play any part at all, he insinuates into it the notion of number. This is shown by the fact that he supposes that it is owing to space that we "introduce order into our sensations"; an "order" which is held in contrast with the distinctionlessness of pure duration, which is succession without numerical order, a mutual penetration without distinguishing of parts. What is this "order" in our psychical states but abstract number? Bergson is mistaken in supposing that the sphere of abstract number, i.e. of the relative exteriority of physical or psychical objects, is, *par excellence*, the sphere of order, whilst consciousness or duration is the sphere of indistinction or confusion. (This latter term is Bergson's own.) Here again we meet the notion that consciousness is a chaos, the "sphere" (if the term may be allowed) of "absolute" contingency. The mutual penetration of parts which characterise duration just involves clear distinction, whereas on the contrary, in proportion as we abstract, we introduce confusion. In abstracting we do not bring to light distinctions, but ignore or overlook them. Now, it is in space that distinctions are suppressed, and here Bergson attributes to duration epithets that properly apply only to space.

The sphere of number or quantity which Bergson substitutes for space, and which he really means by the term "space" is relatively a sphere of disorder. Suppose that

we considered objects merely in their numerical aspect; suppose our view of the world was that of the mathematician *qua* mathematician, the variety of life, birds, beasts, nature with its accompanying sights and sounds, etc., being really suppressed, and not implied, or held in reserve, we should be totally unable to find our way in such a world. It is misleading to call such a world a world of order. The more we are prejudiced by mathematical concepts the more disorder we introduce. Indeed we can understand the world only by surrendering mathematical concepts. We never guide ourselves by any supposed mathematical order, but by concrete experience.

Another mode of denoting space according to Bergson is that in it everything is given as present, all at once without duration. It is the limit into which succession disappears when it is reduced to simultaneity. Absolute simultaneity is the same, and as much a fiction, as absolute contingency. It would be the point where two units lost their distinctness and became one. It would be bare unity hardly distinguishable from emptiness or space. But still it is distinct from space, and does not, as Bergson avers, imply space. On the contrary, any simultaneity of which we can conceive, still implies a measure of succession. We cannot, so far, destroy the succession of two events or objects, as to make them merge. So long as they remain distinct, there must be succession. Number, therefore, must be in time of some sort, and is totally inconceivable otherwise.

Succession in Time belongs to Duration and not to the Outer World.

Bergson writes ("Time and Free-will," p. 107 f.): "When I follow with my eyes on the dial of a clock the movement of the hand which corresponds to the oscillations of the pendulum, I do not measure duration, as seems to be thought; I merely count simultaneities, which is very

different. Outside of me, in space, there is never more than a single position of the hand and the pendulum, for nothing is left of the past positions." Upon this our comment is : It is impossible to count simultaneities. If spatial or external objects appear merely momentarily in my consciousness, if they disappear absolutely as soon as perceived, then I cannot count. I can only count in duration, and in duration I can only count a succession, not a series, of dissolving simultaneities. This does not mean that we are bound to cast ourselves on the other horn of the dilemma which Bergson presents to us. This does not mean that we allow that we can count or measure conscious duration, or even that we can count or measure sense objects so-called. It means that we can count only numbers, and that numbers, the objects of the science of mathematics, are not in space ; are not a simultaneity at all, but are in time, and are subject to all the conditions of succession in time. Bergson makes the futile attempt to prove that homogeneous time implies space, or is reducible to space, or is a kind of space, against the plain evidence which points all the other way, namely, to the truth that what is commonly called space, namely, distance or abstract number, is really a form of homogeneous time. Space is time made so homogeneous that all variety disappears from it.

Bergson opposes duration as succession without mutual externality to space, as mutual externality without succession. But there can be no externality without internality. The most extreme externality must fall inside a unity ; it can never be in space. It must be for a consciousness of some sort. Is not the phrase " mutual externality " contradiction in terms ? Mutuality implies interiority, it implies that the externality is done away with. It implies succession in time. Again, succession and mutuality always go together. Hence the definition of duration " as succession without mutual externality " must be pronounced meaningless. The truth about duration is made sufficiently clear if it is called succession without externality. The

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notion of an absolute externality is as fictitious and misleading as the other equivalents given as definitions of space—absolute simultaneity, or absolute contingency.

Continuing his account of time and space, and still using his illustration of the clock, Bergson declares ("Time and Free-will," p. 108): "Outside of me in space, there is never more than a single position of the hand, and the pendulum, for nothing is left of the past positions". That there can be a space in which there is preserved no trace of the past is an impossible notion, which, moreover, stands in direct contradiction to a previous assertion of Bergson (*ibid.*, p. 79): "But when we add to the present moment those which have preceded it, as is the case when we are adding up units, we are not dealing with these moments themselves, since they have vanished for ever, but with the lasting traces which they seem to have left in space on their passage through it". We cannot think an absolute space or an absolute instant. Whenever we try to do so, we have to preserve some trace of the past and to introduce temporal sequence.

Bergson repeats (p. 110): "There is a real space, without duration, in which phenomena appear and disappear simultaneously with our states of consciousness". In the immediately preceding quotation from page 79 it would seem that it was in duration that phenomena "appeared and disappeared," "vanished without leaving a trace behind". This would make duration to be absolute contingency. But now this contingency is attributed to space. Here space receives another synonym. It is the vanishing, the fleeting, the impermanent, that which is not preserved. But let us not be deceived by language. We can neither perceive nor conceive the unpreserved, the absolutely impermanent. The impermanent, if it is not something relatively permanent, if it is not preserved in some part, must be pure fiction. If conscious states are preserved, and Bergson assumes that they are preserved, then the phenomena, so-called spatial, must be preserved along with

the conscious states to which they are supposed to be relative, and they can be preserved only in time. These spatial phenomena are themselves conscious states, and can only disappear with the disappearance of conscious states.

The thesis of Bergson, of course, is that these phenomena, such as the movement of hand and pendulum of clock, are separate from conscious states—and ought to be kept in their " purity " separate—but that they " profit "—to use his own phrase—from the synthesis which consciousness makes of the phenomena, to appropriate, illegitimately, some of the qualities of consciousness. Our contention simply is that these phenomena were always found in the " synthesis " of consciousness, never were found separated from this synthesis, and that it is totally illegitimate to assume that they were, or are, independent, or that in partaking of consciousness they ever took what did not belong to them. Our action in combining or associating objects in " space " with duration is not a perverse habit of the human mind requiring to be corrected. It is the primordial action. It is rather the dissociation of objects from duration that is the bad habit acquired, which we must train ourselves out of. We can dissociate space, which we have shown to be a fiction, but not objects or phenomena, from duration. The great error of Bergson is, that he passes these phenomena or objects which appear to hang between space and duration over to the side of space, instead of to the side of duration.

Consider, again, in the example which Bergson gives of the oscillations of the pendulum, the relation of the physical series to the psychical series. Bergson assumes that these two series are disparate, and that we too readily interpret the psychical series after the manner of the physical series. But it is purely arbitrary assumption that space belongs to the physical series and not to the psychical. It is merely by definition that this is made so. There is no demonstration that this is the natural and helpful course to pursue.

Whence does space come? Not from outside the mind. Space springs up in that intellectual abstraction which separated the physical from the psychical. It is impossible to regard space as inherent in the one series and not in the other. It must inhere in them both. The proper origin of space is the logical concept of extension. The psychical series is already beset with the tendency to space.

Not only is the psychical series in some sense a physical series, but it is no less true that the so-called physical series is only a secondary psychical series. Just as it is wrong to apply space to the physical and withhold it from the psychical, so it is wrong to apply duration to the psychical and withhold it from the physical. We are accustomed to say that the physical causes the psychical. The truth is the reverse. The physical originates in the psychical. There would be no oscillations of the pendulum unless they had been set going by human agency, and unless the mind attended to them. The oscillations are only abstractions of the happenings, or experiences of the ego.

Bergson violently separates space from time; declares their intercourse illegitimate; forbids them to associate, and stigmatises the results of their union as "bastard". In reality "space" and time, the physical and the psychical, never were separate. There is no incursion of space into time, or projection of time into space. Time engenders "space" pretty much in the same way that a man is the original of his photograph, or of the suit of clothes that he wears. The one is the symbol lacking the warm blood of the other.

Just as there is no real space, so there are no real simultaneities. And as it is impossible to measure any supposed real space because it is impossible to measure duration, so it is impossible to observe simultaneities in the outward world because all simultaneity must be observed under conditions of duration, and must become succession.

The Theory of Motion.

Another instance of Bergson's method of separating a relatively concrete thing or process into abstractions, then supposing these abstractions to be pure—though they really each partake of the other—and finally turning these supposed pure abstractions into independent realities, is seen in his analysis of "motion". He writes (p. 112): "In a word, there are two elements to be distinguished in motion, the space traversed and the act by which we traverse it, the successive positions and the synthesis of these positions. The first of these elements is a homogeneous quantity; the second has no reality except in a consciousness; it is a quality or an intensity, whichever you prefer."

First.—Here Bergson identifies space with homogeneous quantity; but quantity is a kind of quality, as he himself elsewhere asserts. Every "space traversed" which ought more properly to be called a "distance," every "position" has quality. These must be different from homogeneous space, which has no quality. This confirms the view that what Bergson really means by space is number or quantity —that space, so far from being implied in number, is a totally needless concept.

Second.—Bergson falls into a manifest contradiction, when he speaks of the positions which are supposed to be in space, as "successive". Just as he has foisted space on number, and attributed the characteristics of space to duration, so here he attributes the properties of duration to space. In space there is no succession, therefore there can be no "successive positions". According to his own theory, the positions whilst in space must be held as simultaneous, therefore there can be no motion in space. This shows again how impossible it is to think the "instantaneous". Bergson cannot put himself in thought in the position of the instantaneous, without immediately resiling from it. He defines simultaneity as "the intersection of

time and space". What he means by this is that space cuts across the flow of consciousness, immobilises all its variety of contents, and turns succession into a changeless and motionless "figure" or "symbol," or mass of figures and symbols given all at once. Simultaneity is the moment of consciousness, abstracted to the uttermost. It is what Bergson, in his next book, "Matter and Memory," calls matter. It might more appropriately be called quantity or number. It constitutes the world of the mathematician. It is not the "intersection of time and space," for space, being absolutely formless, cannot be symbolised by a line, and can intersect nothing, being itself nothing. It is the point at which time approaches the limit of bare abstraction. It is quality diluted to quantity or number.

Bergson says in his analysis of motion, that the movement itself, being a psychical fact, is not in space, although the moving body is in space. We grant, indeed we affirm, that movement does not "occupy space". But we must be consistent and remove the body itself as well as the movement out of space. The body or object cannot be dissociated from its movement, and if the movement does not occupy space, neither can the body occupy space.

This is a point of the greatest importance, which requires to be emphasised. It follows, indeed, from the previously explained principle, that number or quantity is not in space, and does not imply space. For a moving body is something more concrete than abstract number, and if abstract number is not in space much less is a moving body in space. The inconsistency of Bergson is, that he takes movement out of space whilst leaving number and the moving body *in* space. It becomes increasingly difficult to understand how, on this view, Bergson gets any connection between movement and space. The gulf between movement—as a psychical process—and space is greater than that between a moving body and space. Movement is denied—and rightly so—to be in space; but somehow space is supposed by Bergson to be *in* movement. That is to say: movement

is supposed to contain space potentially, or to imply space. But, as we have previously shown, space is not implied in a moving body, much less can it be supposed to be implied in movement.

The Eleatic Problem.

This involves the position that not only movement but the moving body negates and transcends space. The whole of the puzzles of the Eleatic school which Bergson endeavours to clear up arise from the overlooking of this principle. Bergson is so far cogent in his criticism of the Eleatics in that he points out the fallacy of the notion that movement is *in* space,—the truth being that we cannot keep the point of view of movement and that of space at the same time. The fallacy consists in asserting movement whilst holding space to be a reality. If we hold rigidly to space, movement is impossible. Movement just consists in annihilating space.

But Bergson does not succeed in laying bare the root of the Eleatic puzzles, which is the fallacy that the moving body itself is *in* space. The Eleatic problem was this: How could the swift-footed Achilles ever overtake the slow-moving tortoise in a race, if the latter had even the smallest distance of a start? The interval between the tortoise and Achilles was, it was argued, divisible *ad infinitum*. Achilles would require a certain time to traverse the half of that interval, during which time the tortoise would have moved on. Achilles would again traverse half of the interval still left between him and the tortoise, and so on indefinitely. He might thus shorten the distance between him and the tortoise, to an infinitesimal interval, but he would never succeed in spanning it.

It is (it ought to be pointed out) impossible to see how Achilles could ever establish contact with the tortoise, supposing the latter never moved at all. The assumption of the infinite divisibility of the distance between Achilles

and the tortoise makes movement impossible. The fallacy here consists in attributing to the concrete what is true only of space. Space, just because it is nothing, is divisible or indivisible at will. It is totally amorphous, and the dividing of it, if we can give any meaning to such a process of dividing, makes no difference to it. When we speak of space as infinitely divisible, we liken space to the primeval chaos. Chaos and space, or absolute homogeneity, are closely akin. But this state of confusion, infinite divisibility, can be applied to nothing but space. It cannot apply to the concrete, not even to the barest abstraction, namely number, much less to ordinary sense-objects.

When Bergson says (p. 114) that " there is no need to assume a limit to the divisibility of concrete space," he really grants the Eleatics their initial assumption. Anything concrete, just because it is something definite, is not divisible at will, not even the mathematical unit—1. The same error appears in the statement on page 112 : " It is quite possible to divide an *object* but not an *act* ". (Italics Bergson's.) On the contrary, we must insist that consistency requires us to hold that neither the object nor the act is infinitely divisible. Here, again, we notice the tendency in Bergson, because of his assumption of the reality of space to spatialise objects, to pass them over to the side of space, instead of bringing them over to the side of consciousness. This is a tendency which he reverses in his later philosophisings, in which he dissolves objects into movements, and even affirms the conceivability of movement without an object at all. Bergson, in allowing that the " space " traversed (though not the movement itself) is divisible, is in agreement with the Eleatics. But the " space " traversed is not space, it is a concrete distance ; it is an object, it is definite not formless, and as such is as indivisible as the movement of which the distance is but an abstraction.

The objection to the Bergsonian method is that he does not consistently abide by the principle of concrete conscious-

ness, or of duration, but allows it to be limited by an abstraction,—so-called space or externality. Thus, duration is converted into an abstraction too. He does not observe that these hypostatised abstractions are still conditioned by duration, and that duration is not conditioned by them. Bergson observes with approval ("Time and Free-will," p. 115): "Treatises on mechanics are careful to announce that they do not intend to define duration itself but only the equality of two durations". Thus, Bergson assumes that mechanics is within its rights in seeking to find the equality of two durations, or that it is possible for mechanics to reach this end. But we do not see how, on his own principles, he can admit either the one or the other. How can there be two "durations"? Duration cannot be split into parts, and even if it could, the parts would still be incommensurable. How, then, could the "two" durations ever be found to be equal to one another? It is inconsistent to affirm positively that duration cannot be measured, and then to admit, whilst holding the former principle in reserve, that the notion of equality can be, in any sense, applied to "durations". For "equality" is a purely mathematical notion. The only things that can be said to be "equal" are units, i.e. the abstractions of mathematics.

Bergson goes on to show that the equality of two durations reduces itself to the equality of two "spaces". Our difficulties still remain. How can two "spaces," i.e. actual distances, be measured? All things are subject to the conditions of consciousness. Duration is inalienably characteristic of consciousness. In order that consciousness might measure "space," it would have to cease to "dure," it would have to annihilate itself.

How, then, are measured quantities in general to be explained? It is granted on all hands that they are not to be found in concrete duration. Our perplexity arises from our arbitrary assumption that they are to be found in outside "things". The truth is that mechanics and

mathematics make their own world, or rather worlds, for the two do not coincide ; worlds in which impossibilities seem to occur and absurdities seem to be reasonable. We then fraudulently substitute the world of mechanics for the real Universe, or foist our mechanical conceptions upon our natural experience. The " real " world of mechanics is purely imaginary. The supposed consistency of mechanics is due to its abstractness. When it is brought back to concrete consciousness, the laws of mechanics dissolve away entirely. The " real " is not subject to mechanics, and, indeed, we can have adequate consciousness of the " real " only when mechanics is destroyed root and branch. The world of mechanics, so far from being the condition of the " real," is that which distorts and caricatures it most ; it is that which is furthest away from the " real," and which, therefore, the " real " can most easily transcend.

Just as there is no " real " space, so also there are no " real " simultaneities, whereby Bergson and the mechanists suppose themselves to be able to measure equalities of duration. It is impossible to measure distance, because it is impossible to measure duration. So it is impossible to observe simultaneities because all so-called simultaneities must be observed under conditions of duration, and must, therefore, become moments of succession. On the other hand, if we abstract duration from things, we leave behind, not as Bergson supposes, simultaneities, but absolutely nothing. Every particular " thing " is involved in other things, and therefore " dures ". Every natural being has some sort of rudimentary consciousness, and cannot be considered apart from consciousness.

The Outer and Inner Self.

The assumed reality of space which led to the dualisms between intensive degrees of sensation and pure sensation, between homogeneous time and duration, between a quantitative multiplicity and a qualitative multiplicity, between

moving body and movement, naturally leads to a culminating dualism (at the close of Chapter II. of "Time and Free-will") between the outer and the inner self. The dualism here is much more difficult to maintain, and is not set down in so pronounced a form as the others. Bergson uses here much more hesitating language. He says ("Time and Free-will," p. 138): "I do not mean, here, to split up the personality, nor to bring back in another form the numerical multiplicity which I shut out at the beginning". But none the less the dualism is inevitable on his premises; it follows from the assumption of the reality of space, or an external world, and can only be overcome by retracting the dualisms previously treated. Indeed, it is the absurdity of holding this latter dualism that leads to the dissolving of all the others.

The new dualism takes the following form: The inner self is the true or fundamental self, the self which "dures," or which is in duration. The outer self is the self moulded by the influence of external objects, the spatialised or externalised self. Bergson shows how external objects dissociate the parts or moments of the inner self, and monopolise them, detach our interior states from their relation to ourselves and attach them to the things of the outward world. The inner life thus receives scant attention, almost escapes notice, and is made a mere appendage to the outer life. The variety and riches of the inner self is covered over by the outer self. The necessities of the material life, language, law, and social convention, deform and distort our immediate experience, and thus occasion the formation of a secondary self, which functions as if it were the real and only self, grows at its expense, and finally imposes (though the illusion which this imposition induces is never complete) its character and laws on the fundamental self. The general fact is clear, and no one could display more eloquence and skill than Bergson in depicting it. But the interpretation put by him on this state of matters is subject to much criticism.

First.—Bergson supposes that this dissociation of the outer self from the inner self is due to the invasion of space into duration. We will not here insist on the point already sufficiently emphasised that space is not a reality at all, and hence could not produce the division of the outer self from the inner self. We have seen that what Bergson means by space is something concrete, the abstract numbers of the mathematician, or the moving bodies of the physicist, in other words, sensible objects. His thesis, thus corrected, is that the external world carries dualism into the self. But the external world so-called is not an independent reality; it is nothing apart from the outer self. It is simply an abstraction from the self. It is not a reality prior to the outer self, but posterior to it. And just as the external world is an abstraction from the outer self, so the outer self is but an abstraction from the inner self. It is arrived at by emptying the inner self and is nothing positive and independent. We must treat this dualism as we treated the others. Just as quantity and homogeneous time when reintegrated with consciousness fell inside quality and duration, so the outer self when brought back to immediate consciousness becomes one with the inner self. The true and fundamental self is not an inner self which has an outer self in contrast or in opposition to it, but is a self which is beyond the dualism of inner and outer.

Second.—Bergson assumes that this formation of an outer self is convenient, nay more, necessary for practical social life. This "necessity" is, however, adventitious; it is beside the mark: Truth is the primary necessity. This assumed "necessity" cannot quieten philosophical doubt, or overcome metaphysical scruples. The formation of the outer self is due to psychological analysis, and the whole of the philosophising of Bergson hitherto is, from the untoward results to which it leads, a warning against analysis, i.e. the use of abstractions. If we allow the formation of the outer self, we may (though this is highly disputable)

be acting in a manner conducive to "utility," but then we must give up all pretence to arriving at the truth. The outer self, like degrees of sensation, and like homogeneous time, hangs between space and duration. Now he has denied the validity of the notion of degrees of sensation, and he has declared homogeneous time to be a "bastard concept". In consistency he ought to have fixed the same stigma to the outer self and denied its validity. Metaphysics can have nothing to do with abstractions. The outer self is the hypostasis of an abstraction, and must be given up.

Third.—Again we must object to the contrast of the outer self as a multiplicity of clear simple distinctions, against an inner self the multiplicity of which is confused and distinctionless. If this were true, duration would be absolute contingency, consciousness would have the property of space; it would be an absolute chaos wherein the supposed principle of infinite divisibility would have free scope. On the contrary, we must adopt and maintain the canon laid down by Bergson himself in the opening part of the third chapter of "Time and Free-will" that that is simple which is most immediate; that that is clear which we know most intimately; and that that is most confused and distinctionless which is most analysed, most abstract. Abstraction does not reveal but sublate distinctions. The so-called inner self is more simple and more easily revealed than the outer self.

Fourth.—Bergson assumes that the inner self cannot communicate itself, or manifest itself in any other way than through symbols, either found in the outer world, or artificially made out of outer objects. This we contest. The fundamental self, if it is to reveal or communicate itself, must dispense with symbols. We can communicate with our fellow-men apart from language or any other physical or conventional symbol. When we return to immediate consciousness we see that this intercommunication with our fellow-men already exists. The phenomena

of psycho-analysis, of hypnotism, thought transference, of prayer and of poetical and religious inspiration, show that there is direct touch or communication of mind with mind. Language, as a mode of communication, taken by itself, is always partial, defective, and misleading, and has always to be supplemented and corrected by reference to direct immediate consciousness. Mind is in manifestation and in communication with mind before ever language arises. All of what we commonly call nature has as much right to be considered a channel of communication between minds, as conventional speech and written language. It is arbitrary to limit communication to one channel alone, namely language. If we maintained ourselves in immediate consciousness, language would be totally unnecessary. Language is always abstract, and is never adequate to a given situation or " whole " of consciousness and feeling. Hence we never rely on language alone, but always correct it by reintegrating it with immediate consciousness—a fact forcibly exemplified in the proverb : " You may tell a lie with your mouth, but the accompanying grimace tells the truth ". The habit of using language narrows the vision and breeds a blindness and insensibility to those immediate intuitions which grasp the concrete significance of life.

Fifth.—This leads to the conclusion. Bergson assumes (1) that the interpenetration of conscious states in duration is a fact occurring only within the experience of the individual ; (2) that this permeation of conscious states by one another leads to " confusion," or the merging of distinctions. On the contrary, we must assert that (1) this interpenetration proceeds beyond the mind of the human individual ; the individual mind itself is a conscious state within which other minds are reflected, and without which it could not be. There is a mingling of mind with mind, as well as of conscious states with one another ; (2) the revelation of this fundamental unity does not destroy the distinctness and characterisation of individual selves—rather it brings them to light. The individual self is not

an ultimate unity, but an abstraction. In order that selves may be "individual," they must permeate one another. Their interpenetration is necessary to their distinction. But we must guard against the supposition that it is by the mere interpenetration of selves that they can be properly integrated. It is not by the union of the human mind with similar minds, that we reach fundamental unity. On the contrary, all so-called individual selves must be brought back to concrete consciousness—the fundamental reality. This is the true unity, whence the distinctness and interpenetration of selves flow. We thus keep clear of the error that the ultimate unity is a mere multiplicity of selves.

CHAPTER III.

FREEDOM AND NECESSITY.

The Notion of Causality—Mechanism and Contingency—Necessitarianism and Libertarianism—The Meaning of "Prediction" in the Natural Sciences—True Freedom—The proper Relation of the Natural Sciences to Psychology.

The Notion of Causality.

We must not forget that the problems hitherto studied, whether sensations could be quantified, and whether duration could be spatialised, interesting though they are in themselves, were taken up by Bergson as a preliminary to the solution of a still more important and more practical question, namely, whether human selves are free. Are we wholly immersed in physical nature, or is nature subordinate to us? Are our thoughts and actions simply links in a chain of external causes and effects, or are we independent and self-determined causes? We can best approach this question by giving Bergson's analysis of causality.

He finds the notion of causality to be infected with an ambiguity similar to that which he found in the ideas of "intensity" and "time". Bergson distinguishes between two senses of the word "cause"; he divides the ordinary concept of cause into two diverse elements which have nothing to do with each other. In the one sense, causality is the relation between the elements of a whole, given at once. It is the relation that exists between the simultaneities of the external world. It is what may be

appropriately enough termed external causality. We must be careful not to import the notion of succession or activity into this external causality. For Bergson—at least in this part of his work—holds there is none such in the external world. It is the relation appropriate to the abstract numbers of mathematics, or to the abstract atoms of mechanics.

The ideal of this type of causality would be found in mathematics where numbers and figures are produced at the will of the operator, and enter into any combination which he chooses to impose on them. Mathematical necessity is the extreme limit of the externalising of causality. In mathematics we approach the point where the effect tends to collapse into motionless identity with the cause. Mathematical inherence, as exemplified in any of the theorems of Euclid's first book of geometry, is the extreme form of mechanical causation or external necessity, and is the ideal which many physicists believe they ought to aim at.

It seems strange to couple mathematical inherence with external necessity. Mathematics is often supposed to be the type of inner necessity. But this is a gross error. The ease with which mathematical theorems can be developed is due to the fact that there is little of concrete experience controlling the operation. Mathematical clarity is got at the cost of extruding reality. Mathematical logic is not the necessity of anything real, but of an abstraction. Wherever there is most abstraction there is most externality. Mathematics develops the implications of its own abstractions, and gives, therefore, the most superficial kind of necessity.

Pursued to its logical extreme, this concept of cause destroys itself, as cause becomes indistinguishable from effect, and all variety disappears in identity.

In its second sense, " cause " is conceived after the manner of the conscious effort of the human mind to realise an end or actualise an idea. Here cause actually produces effects ;

there is a real transition from cause to effect, a real tension between them. We are here at the opposite extreme from that of mathematical logic, or mechanical causality. This second notion of cause results in the idea of efficient causality characteristic of duration. The one kind of causality, mechanism, which Bergson illegitimately identifies with necessary determination, but which really is closely allied to contingency, is characteristic of so-called physical states or outward reality; the other kind of causality, which Bergson confounds with contingency, but which really implies determination, is characteristic of conscious processes.

The Bergsonian theory is that there is a confusion of these two kinds of cause which he has thus abstractly specified. There takes place a transaction between them —a kind of endosmosis—they give and take; they each take on the qualities of the other. Thus, in nature there is no real, that is to say, no efficient causality. That one physical event seems to be caused by another physical event is an illusion due to our reading of external things after the manner of psychic processes. When we see causality in the "succession" in natural things, we are illegitimately personifying them; we are supposing that they experience duration like a conscious being. Force properly belongs only to our conscious efforts or impulses, and the notion of force which we apply to one physical body acting on another is an illegitimate importation from the human mind into the outward world. We are animistic in relation to nature, and endow things with an activity which they do not really possess.

This confusion of the two distinct kinds of cause which results in the animistic view of nature, equally also results in a naturalising or mechanising of mind. In mind, properly speaking, there is no external causality. The fallacy of the necessitarian determinist just consists, Bergson holds, in bringing into mind the mechanism which, rightly, applies only to objects. It is the mistake into which naturally

falls the Associationist-psychologist who regards conscious states as separable units or " things," and substitutes his analytic reconstruction (which is properly a pulverising) of consciousness for concrete mind.

Mechanism and Contingency.

Here Bergson pursues his usual method of solving problems, by setting up two opposed abstractions—which is but a mere appearance of a solution, secured at the cost of an irremediable dualism. Causality is a hybrid concept like intensity or time. Its two constituents are mathematical connection, simultaneity without succession, pure externality, on the one hand ; conscious effort or impulse, inner causality, on the other. As against the method of Bergson, who separates these abstractions, makes them " pure," and considers the problem solved by assuming that these abstractions are not abstract but " real," we must pursue the opposite course, we must undo this abstraction, and return to concrete unity. Just as quantity is but an abstraction from quality, so mechanism is but an abstraction from what we may generally call spontaneity. It is nothing real in itself. It is reached by reducing spontaneity to the minimum. The way to deal with mechanism is not to hypostatise it, but to liquidate it by bringing it back to immediate consciousness ; and when we do so, we see that mechanism is not a property of any reality supposed outside us, but is really in us, that it is assumptive, and therefore arbitrary.

The arbitrary character of mechanism is most clear in the case of the science of mathematics. Nothing can be more mechanical than the manner in which it is deduced that the three angles of a triangle are equal to two right angles. Mathematics is mechanism pressed to the limit. It is the most materialistic of the sciences, in the sense that it is furthest from life and consciousness. On the other hand, mathematics, as it is the sphere of mechanism, is no

less also the sphere of arbitrary hypothesis. As it is the most " materialistic," so also is it the most narrowly intellectualistic of the sciences. The numbers and geometrical figures of mathematics, are not causes of their properties, but are themselves, with their properties, effects of hypotheses. The axioms and propositions of Euclidian geometry are all products of the human mind—arbitrary assumptions. Abstractly speaking, there could be no one standard geometry ; many geometries would be possible. We could get a standard geometry only by recourse to experience, i.e. by integrating mathematics with physics. The notion that—whilst physics has to make its propositions square with experience—the only business of mathematics is to maintain the self-consistency of its axioms, postulates and propositions is totally false. Mathematics, too, if it is not to be a mere game or arbitrary speculation, must also seek to make its propositions consistent with experience. It is a natural science, just as much as physics or chemistry. That the propositions or axioms of " our " geometry are " suggested " by an external reality, or some supposed " nature," is a mere fancy. We have supposed nature to be like our mathematical laws. It is quite erroneous to speak, as Bergson constantly does, of a mathematical necessity as existing in the world. Bergson sees that, in some sense, the laws of mathematics are framed by the human mind itself, and emphasises the point that these laws ought not to be turned into an argument for the theory that human actions are mechanically determined. But none the less, he does not draw out the full implications of the truth that mathematics is a product of the human mind. He assumes that the human mind is obliged to think mathematically. This " obligation " is entirely self-imposed. It is a miscreed of our own that things are subject to mathematical laws. Though he shows in theory that mathematics is produced by ourselves, he, in fact, admits the tyranny of mathematics over the human mind and the human action. He does not see that we are not

bound to posit the axioms that are the foundations of mathematics and physics. Mechanism is derivative from a postulate itself non-mechanical.

This changes our whole conception of mechanism. Mechanism which is contingent on something else, is not mechanism at all, i.e. mechanism when reintegrated with consciousness dissolves. It is not a quality of outward things or of conscious beings, but of the abstractions of the mind. Nothing can be further from the truth than the commonly-accepted notion that mechanism is concrete fact. Hence the fallacy of talking about the compulsion, or authority, of natural laws. This " compulsion " springs from no outer force, but from our own subconsciously-produced abstractions.

Bergson himself gives the clue to the proper solution of this problem when, in the first part of the third chapter of " Time and Free-will," he shows conclusively that every kind of theory of physical determination can be traced to the bias for psychical determinism. It is obligatory on him, after having thus shown the dependence of physical determinism, or, in other words, of mechanism upon a mental tendency, to retract his previous assumption of an independent external causality. It may be remarked in passing that this bias for psychical determinism does not square with Bergson's theory of the contingency of mental events.

Mechanism is spontaneity reduced to the lowest. There is the closest affinity between the mechanism of outward nature so-called, and certain low forms of mental life. In our dreams, for instance, external necessity seems to join hands with the lowest grade of spontaneity. Nothing can be more arbitrary than our dreams ; they undoubtedly imply mental activity, but that of the slightest. Here mental activity is least. Now, it is also just here, as psycho-analysis shows, that mental life is most necessitated. The most surprising and incalculable items of the dream are shown to be bound up closely with the mechanism

of the so-called unconscious. What we call nature is but a lower form of this mechanism of the unconscious. Nature is simply mechanism that has lost consciousness of itself. Nature, instead of being the type of reality, is a kind of dream. It is the business of philosophy to reintegrate nature with consciousness.

Bergson, in his next book, "Matter and Memory," regards the state of dream as characteristic of consciousness as opposed to the strict determination characteristic of material nature and physical action. But so far is the dream state from being characteristic of concrete consciousness, that, on the contrary, it is in dream that consciousness tends most to merge in nature-mechanism.

This brings us to a further point. The result of the abstraction of mechanism from consciousness, leads to a distortion of our view of psychic states. Psychic states are taken to be the residual facts after the abstraction of physical phenomena. Thus, consciousness is necessarily considered to be itself an abstraction. Hence for Bergson, consciousness loses its proper characteristic, which is spontaneity or freedom, and takes on the characteristic of contingency. As "space" is considered the mark of outward reality, so contingency is held to be the prevailing character of the stream of consciousness. Contingency, like the abstraction which it faces, is unreal. It is the counterpart of space. But as space is nothing, so contingency, chance, or chaos is nothing. It arises through the intellectual process of abstraction. It is the exaggeration of mere arbitrary movement or impulse, and is "next door" to inertia. Contingency is the counterfeit of spontaneity; and the spontaneity of mind, so far from being properly characterised as contingent, is further removed than the so-called mechanical processes of nature from contingency.

Bergson says that the very fact that we attribute necessary determination to things physical invites us to consider ourselves as free. This is a totally false conception of

freedom. This would make freedom equivalent to non-determination, which involves a deeper slavery than mechanical necessity. Indeed, so long as the mind is faced and opposed by a mechanically-determined nature, so long also must the mind, to that extent, be mechanically determined by it; and—so far—the mind can be no more free than nature is. The measure of the mechanism of nature is the exact measure of the bondage of man. Freedom can be obtained only by withdrawing the abstraction which results in the dualism of matter and mind, dissolving mechanism and reintegrating it in the unity of mind.

The psychologist *qua* psychologist cannot find freedom in the mind. He is precluded by his very assumptions from finding it. The consciousness which he studies is never concrete living mind, but mind from which the body has been abstracted, upon which body it is, by reason of that abstraction, contingent.

Contingency always implies, in actual experience, a relation of dependence upon something. The contingency of consciousness marks not its freedom but contains the implication—consciousness is dependent on the body. Bergson's method of breaking up the concrete into abstractions proves, not the liberty of the self, but its absolute bondage to the external. All contingency implies mechanical determination. That is to say, any supposed instance of contingency must be explained by going back to some form of mechanism with which it must be reintegrated. And on the other hand, mechanism implies, not contingency, but, in a measure, the ousting and repulsion of it. Contingency is but the lowest limit of mechanism, as mechanism itself is but a straitened or degraded form of human activity.

We have already pointed out that what Bergson meant by space was not space as he had at first defined it, but some concrete distance. We have a similar criticism to make on his conception of contingency. What he means by contingency is some measure of spontaneity, however

small. Contingency is the limit at which all spontaneity tends to vanish.

Yet Bergson constantly equates freedom with non-determination. But non-determination implies not more, but less, freedom than mechanism. Freedom must do away with non-determination, even more than with mechanism. We must dissent from the notion which puts freedom and "determination" in opposition, and which equates "determination" with "mechanism". On the contrary, determination is a quality of the concrete mind. Spontaneity and determination coincide. Mechanism is not the type of genuine "determination," but is rather determination breaking up and descending to the lower limit of contingency. Mechanism is but a shadow, or simulacrum, of genuine determination.

Necessitarianism and Libertarianism.

Bergson shows that the ordinarily contrasted theories of Determinism and Libertarianism are vitiated by their common postulate, which is the theory of the Association of Ideas. The use of language also is an expression of the same postulate, and greatly strengthens the prejudice that mental states are atoms which can be named or marked by words. All attempts, he says, to define freedom in words, surreptitiously introduces the idea of necessity, and weighs the scales in favour of the mechanical-determinist theory. The question of the freedom of the self is one of the artificial problems, induced by intellectual analysis and fostered by language. The solution of it comes when we drop the atomic theory of mind.

All this is eminently true. The freedom of the self cannot be defined. Why, then, does he attempt, himself, to give a definition of it, to affirm liberty of the self in the sense of contingency, and to condemn determinism? If we are to give a name at all to this "freedom," it might as well be "determinism" as "contingency".

Both the theories above-named mistake the meaning of the terms which they uphold, and by which they label each other. The ordinary determinist asserts that when the self is placed before alternative choices, it was necessitated by its past to make the choice which it did make. The Libertarian asserts that the self could have done otherwise, that it was always open to the self to take the other alternative. The determinist confounds a state of "determination" with mechanism, not perceiving that the "determination" of the self to take a definite line of action is an evidence, not of mechanism, but of concrete freedom. The Libertarian confounds freedom with "liberty of choice," not perceiving that liberty of choice, being a lack of "determination" or a lack of "concreteness," implies a splitting of the mind, and therefore involves a certain amount of mechanism. "Liberty of choice" implies doubt, hesitation, ignorance, a lack of unity and of singleness of aim; and all these are marks of bondage. The free self could never be in the state of deliberation imagined by the determinist and libertarian before two or more open roads.

Bergson does not surmount the dualism of Determinism and Libertarianism. He shares the error of the determinist in identifying determinism with mechanism, and practically impales himself on the other horn of the dilemma. In making contingency characteristic of consciousness, he is logically compelled to accept the false Libertarian view.

James Hinton, in his "Philosophy and Religion," page 238, has some illuminating remarks on free-will, which it seems here appropriate to quote: "Now does not our entire conception of a free-will want rectifying? . . . Surely we must have been considering as belonging to our constitution as moral beings, that which is, in truth, only the result and sign of our sinfulness, viz. this power of ARBITRARY action? We think we have the power of doing as we choose. I see that this is altogether a false issue. It is not the point; nor is it true. What we have is the

power of ACTING, i.e. of acting right; but when we act, we must act right; the rightness consists in that fact of acting. If we have not acted RIGHT, we have not acted. . . . Freedom is the true opposite to free-will." Again, he writes (*ibid.*, p. 241): "In right action we also act necessarily, viz. by a moral necessity, the true actual necessity. This is our freedom, our power of action, our Being, our personality. When we sin, or do not act rightly, then only are we arbitrary." Bergson identifies freedom with arbitrary action. But arbitrary action, or "free-will," is rather the note of the feeble, characterless motions of almost inert "material particles" than of the activities of conscious beings.

Bergson succeeds in exposing the fallacies of mechanical determinism, or, as it may be conveniently called, necessitarianism, but only to fall a victim to the equally great fallacies of libertarianism. His arguments against mechanism in consciousness are conclusive. But he extricates the self from the mechanism or necessity of the past only at the cost of making it subject to the contingency of an unpredictable future. He exaggerates libertarianism and pushes it to the extreme of absurdity. We find that the freedom which, under this libertarian doctrine, he grants to the self, is really much less than the freedom granted by the necessitarian. Mechanism, however poor or abstract, is something definite or determinate, and implies a certain amount of freedom. The contingency of an unpredictable future is totally indeterminate, and implies, least of all, the presence of freedom.

Bergson emphasises the fact that the future of the self that "dures" is unpredictable, and imagines that thereby he ensures the freedom of the self. But the "freedom" of such a self, if freedom we can call it, is much less than it would be if its future were predicted. The future of the abstract self cannot be predicted because it is absolutely formless and characterless, like space. Its future is unpredictable because of its emptiness. There is here no

possibility of prediction because there is nothing to predict. In the self, however, which is genuinely free, which is concrete, and therefore determinate, there is more, not less, possibility of prediction.

The Meaning of "Prediction" in the Natural Sciences.

The question of the nature of prediction in the physical sciences, and as to how far it is possible to predict in human life is so important that it is worth further elucidation. The true principle is: The greater the abstraction, the more problematic all prediction becomes; and on the other hand, the nearer we come to concrete life and experience, the easier it is to predict, and the more does prediction partake of truth and finality. The more life is materialised, and the nearer we approach the limit of contingency—the less possible is it to see the future with security and definiteness. It appears as if in the natural sciences prediction might be perfectly definite, as in the instance which Bergson is fond of adducing, when the astronomer foretells an eclipse of sun or moon. But it is overlooked that the astronomer cannot predict an eclipse as a concrete fact of experience. Expeditions equipped at great cost and labour, and planned with the greatest forethought, have often gone to distant parts of the globe in order to obtain a position favourable to observing all the phenomena attendant on an eclipse, only to find that at the critical moment no observation was possible owing to the total obscuration of the sky by mist and cloud. The astronomer, in order to be a prophet, would require to foresee, not merely the relative positions of sun and moon, but also the changes and motions of every wandering cloud and breeze. It is much more difficult to predict facts in the realm of nature than in the sphere of mind and of conscious human activity.

It is true that the use of scientific inventions, as of the high-grade chronometer, enables one to predict within a narrow sphere. But every effort thus to stabilise a part of nature brings us back again to contingency in respect of some other aspect of nature. Thus when steamships became swift, the vibrations on the bridge became so great that astronomical observations could not be taken from it with the necessary accuracy, and other methods had to be resorted to for determining the position of the ship. Similarly, also, the use of iron in the construction of steam-vessels introduced errancy into the indications of the compass, and as ships became larger and faster, the error became greater, necessitating the introduction of methods to determine the error of the compass. No man can foresee the results of the application of mechanical inventions to nature. In the specificially human sphere, there is much more stability, and hence much more room for prediction. We must reverse the principle of Bergson, that the nearer we come to the natural sciences, such as astronomy, prediction becomes so certain that it becomes equivalent to immediate present knowledge, and that the nearer we come to the study of man and society the less easy it is to predict. Bergson's position is that prediction is totally incompatible with human freedom. This is because he identifies freedom with contingency. He assumes that the more we recede from nature and move towards humanity, the nearer we approach contingency. The reverse is the case. The relative mechanism of nature is much nearer contingency than is conscious life and process. The results of the sciences which busy themselves with nature are on that account infected with instability and error. The more mechanical a science becomes, and the more it approaches homogeneity, the more it becomes subject to contingency. The more of reality that a science leaves out, the more liable it becomes to error, and hence gives less scope for accurate prediction.

The power of prediction depends on the concreteness of

the point of view. All scientific knowledge, because of its abstractions, is a relative ignorance; hence prediction in the sciences must be more or less illusory. Prediction implies, not as Bergson supposes, external mechanism, but a certain measure of spontaneous determination. Bergson holds that prediction, or predestination, is quite incompatible with that principle of conscious life which he calls "duration". On the contrary, the deeper the unity of duration, the greater is predictive power. Prediction is easier, the more dualism is transcended.

One feature of this dualism is the division of one human mind from another. Bergson's argument in favour of contingency and the impossibility of prediction in human life is based on the assumption that this division is ultimate. He argues that it is impossible for one man to enter into the experience of another, or to foresee what he will do. Paul, he says, cannot predict any event in Peter's life without himself becoming Peter. Paul's identity would then be abolished and his experience would coincide in every detail with Peter's. This line of thought goes on the footing that there is no involution of one man's experience into that of another; that human minds are external to one another like material atoms. On this view all human society, all association for common ends would be impossible. The truth is that Paul and Peter were from the first never external to each other. They can foresee each other's experiences, without the necessity of these experiences coinciding. The more stable in character Paul and Peter are, the more easy it is to predict what they will do. Paul and Peter cannot observe each other, without mutual assimilation of character. There is a higher unity that enfolds them both.

The error in Bergson's parable of Paul and Peter is, that the relations of the minds of Paul and Peter are conceived atomistically in accordance with the maxims of the Associationist Psychology, which he has repudiated. He abolishes atomism within the human mind, but not within

human society. Bergson seeks to restore continuity between our mental states by withdrawing them from the refraction of the medium of matter and space. We must seek to do the same for different human minds. The materialism that separates and mechanises the phenomena of each mind is, indeed, only a result of the materialism that separates mind from mind, and encloses each in separate bodies. We cannot abolish psychological atomism without first abolishing sociological atomism. Bergson, in the progress of his philosophy, transcends atomism and acknowledges continuity in the so-called material world. We have far more reason to assert continuity in the mental and social world. If the division between material things is, as Bergson says, illusory, equally so must be the division between human bodies, and still more illusory must be the division of mind from mind.

We must therefore start, not with the divergence of Paul and Peter, but with the unity in which they both can be integrated. As we pass from the external or abstract point of view to the inner or concrete point of view, we rise above, not merely the constraint of physical phenomena, but also above the limitations of human wills and caprices. In the ultimate, freedom which is the control over one's own fate, and determination, which is the equivalent of predictive power, coincide.

Bergson tends to give currency to the misleading notion that the supervention of man upon nature introduces an incalculable and unpredictable element into it, called contingency. Man does not introduce topsyturvydom into nature. Just because nature is shown not to be merely mechanical, and because it is assimilated in character to man, it is made thereby more calculable, more amenable to rule. On the other hand, the common notion current of the " uniformity and continuity " of nature which stands in contrast with the contingency of nature, is but an abstract homogeneity bred by science, and is equally misleading. This " uniformity and continuity " is not a fact

at all, but a scientific "ideal". Nature, in so far as it is made "uniform and continuous," is shifted towards contingency and is thus less amenable to prediction. The more nature is externalised the more does an incalculable element intrude into our consciousness. The common supposition is that science rectifies the contingency or disorder in nature by introducing or revealing "uniformity". On the contrary, science takes the first step towards contingency by setting up and trying to establish the pseudo-ideal of an external or mechanical uniformity. It is only when we are free that we can predict, because it is only in concrete freedom that there is proper order or determination, and nothing external to disturb that order. The mistake of Bergson, going on the assumption that law was equivalent to mechanism, was that, when we escape mechanism we are transferred out of the sphere of order into that of contingency, whereas we really move from contingency into the sphere of order or law.

Bergson gets contingency by emphasising the dualism of the outer self and the inner self. But this division is not primordial. Bergson confounds introspection with intuition, the psychic self with the metaphysical self. The one is the object of psychology, and emphasises the contrast with the outer self; the other is concrete mind wherein we deal with life directly, where we do not emphasise the contrast with the outer life, but transcend it.

As we pass from an external to an inner point of view, material phenomena come under our control, or rather we are able to rise above the constraint of material phenomena. This means indetermination in the sense of an escape from accident or mechanical determination; it means freedom and the power to predict. Prediction goes along always with internality, freedom from external force, and with control over one's fate.

The astronomer may predict an eclipse of sun or moon a thousand years hence. But what guarantee has he that a thousand years hence men will have the same world before

them, or interpret it according to our present scientific laws? What guarantee is there that they will not have altered the world, or moved into a different world? Just because the external world is abstract and changeable, prediction in that sphere is least safe.

Mechanism and determination are opposed concepts. Mechanism holds of the abstract bodily self, determination holds of the metaphysical self. Mechanism is relative to disorder. It is a make-shift form of law introduced to compensate for the loss of true law.

Furthermore, this mechanism did not originate in the external world and then migrate into the psychical world. It already existed in the mental world in the form of customs, traditions, and religious observances based on the mere association of ideas. Freud has shown in the psycho-analysis of dreams to what extent mechanism holds in the psychic realm, or at least how easy it is to run our psychic states into the forms of mechanism. Mechanism does not come from nature but from the abstracting intellect, and has been imposed *ab extra* on the world. The mechanism of external nature is really an offshoot of that other form of mechanism, the artificialities of civilisation.

In the phenomena of psycho-analysis we also notice the association of lawlessness and mechanism. Which is original, the lawlessness or the mechanism? One answer is, lawlessness or disorder is the empirical fact, and mechanism is the veneer that covers it. This is what the Kantian view amounts to. The truth could be better put by saying that mechanism is prior to all forms of disorder, and that lawlessness is simply the limiting case of mechanism.

So long as we keep up the dualistic point of view, assuming the reality of the world, mechanism is enforced on us. We are under the illusion of finding it in the world, whilst we all the time carry it with us. When we resile from dualism and transcend the world, we see that this mechanism is merely a temporary protection against disorder, and may be itself called a form of disorder relatively to higher

forms of order. We must abolish mechanism to reach the inner transcendent point of view. Mechanism exists only for mechanised mind.

The root of mechanism is simply the psychological law of the association of ideas. For just as the elements of the law of association are external to each other, so also are the items of a mechanical law. Bergson's conception of freedom is to extend mechanism and preserve the external relation to nature, and keep up a pretence of sovereignty of the mind by extending the area of indetermination or liberty of choice. But, if the mind were really free and sovereign, it would not extend mechanism but abolish it ; it would take the chains off nature and bring nature into its own unity and endow it with its own freedom, and thus remove from it the taint of lawlessness, or unpredictability, which is not "natural" to the world, but which has been foisted on it.

The power of prediction depends upon our nearness to intuition of the True and the Good. God's action is always most predictable. Natural science prediction depends upon abstraction. Suppose that the downgrade flow of matter were stopped, then the predictions of natural science would utterly cease. To say that natural science predicts the future is a begging of the whole question. It has already put its own construction upon the future which it pretends to predict. Such predictions tend to fulfil themselves ; but are not, thereby, taken out of the sphere of contingency. Where you have abstraction you are bound to have contingency. Where you have reality you must have valid prediction.

Bergson himself points out that the natural philosopher does not really predict. He only states in the form of prediction a present empirical fact. We have also to add that these empirical facts are alterable. The prediction of natural science is only true—"provided spiritual causes do not intervene". It is in the sphere of the natural sciences, not in concrete experience, that indetermination really exists.

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Natural science is based on a deliberate ignoring of important facts. As Poincaré says in "Science and Method," page 66: "It is, thanks to chance, that is to say, thanks to our ignorance, that we can arrive at conclusions". Thus natural science is based on chance. The hypothesis from which it starts is false. The results of science are provisional. This is just the same as to say that the laws of science are brought within the process of evolution. They are not static. They should not be projected into the past or the future. Poincaré (*ibid.*, p. 65) asks: "If a modern physicist is studying a new phenomenon, and if he discovers its law on Tuesday, would he have said on Monday that the phenomenon was fortuitous?" We answer that nothing that can be brought into relation with the human mind can be absolutely fortuitous or contingent. The phenomenon was, however, transitory or provisional, and the discovery of the law of the phenomenon on Tuesday does not elevate the phenomenon into absoluteness, or destroy its provisional nature. The law of the phenomenon itself, too, is transitory and provisional.

To predict in natural science is simply to follow out the consequences of an assumption. An assumption is made never from the standpoint of complete knowledge, but from that of ignorance. The assumption is never completely true, and the predictions that are drawn out of the assumption have no more validity than the original assumption. The fact that astronomy can predict an eclipse of the sun or moon is no proof of the validity of the assumptions of astronomy. The assumptions make the prediction "come true," and positively exclude the evidence that would tell against the assumption.

Prediction is supposed to be the high-water mark of scientific achievement. It is the ideal at which the intellect aims. Just as the senses seem to manifest their power by spanning ever more and more immense distances in space, so the intellect seems to manifest its power by spanning ever more and more immense periods of time. The

procedure is to set up an imaginary time, what Bergson calls "space-time" denuded of spiritual life. The more bare you make reality, the easier it is to predict, but the less trustworthy it is. These predictions are relative to our ignorance.

The astronomical design of the universe is of the nature of a machine. The movements of a machine are easy to predict. But it has to be remembered that every machine, just because it is a machine, stands in an accidental relation both to other machines and to the rest of the universe. Yet the universe cannot be barred from affecting the machine. Every machine is a temporary device. The prediction as to the movements of the machine have no validity for those who do not use the machine, or who use a better machine.

The supposition that natural science can predict is a piece of self-deceit, like that of the man who secretes a treasure and then claims that he discovered it. What the scientist predicts has been invented, "placed" by the scientist himself. It is nothing real. It has been produced by the operation of postulates. So long as these postulates are maintained what is predicted is bound to follow. Every postulate is a prediction. Every prediction is a postulate. Prediction is a demand on the future. It can never be an affirmation. If it be admitted that the knowledge of the universe is subject to continual change, then a prediction cannot be realised in its original form.

It is particularly inconsistent on the part of Bergson to assert the power of scientific prediction, seeing that he emphasises to such a degree the radical contingency of the movement of mind. The only logical conclusion from the contingency of mind is the utter impossibility of prediction. If contingency is the fundamental characteristic of experience, then a prediction can only be a transitory statement of a transitory fact. The contingency, or indetermination, which holds of consciousness must also inflict itself upon the supposed absolute predictions of science which fall

inside consciousness. Every statement claims to be universal, to determine things, and thus to be an expression of the future. As we approach intuition prediction loses its hypothetical character, and becomes one with concrete experience. Prediction is then transcended. Science cannot predict; it simply projects the past into the future. Metaphysics, on the other hand, is not bound, as Bergson supposes, to wait for the future; it intuites it as present. For the absolute mind there is nothing probable or problematic; hence no need to predict.

True Freedom.

Bergson confounds heterogeneity or concrete diversity with contingency, whereas the two are absolutely opposed. In concrete heterogeneity everything is implicated in everything else: know one thing and you know all. This is the position of the free self in which prediction is beyond the possibility of error. Contingency is chaos wherein the knowledge of one thing excludes the knowledge of everything else. The self in contingency is at the mercy of chance or accident, and therefore its future is below the possibility of prediction.

Necessitarianism places the self in bondage to the abstract past. Libertarianism in bondage to the abstract future: the Bergsonian theory in bondage to the abstract present. The "free" self of Bergson lives from moment to moment, "from hand to mouth," "a day at a time"—is transitory, capricious, lawless. He makes the mistake—instead of going back to concrete reality to find genuine freedom—of resorting to the barest abstraction. He repeats the error of certain mystics who, seeing that God could not be described in language, and applying to Him a series of negative terms, gave the impression that God was the barest abstraction, i.e. that He was beneath words, whereas He is really beyond them. Now, Bergson has

engaged in a polemic against language, and has shown the perils involved in the use of language. But it is dangerous thus to tilt against the use of words, unless one returns to the concrete and steers clear of the road of abstraction. His refusal to allow prediction in the life of the free self is due to his making the self abstract. He denies to the free self any " determination " whatever. A predictable future like the astronomer's prediction of the future fortune of the sun suffering an eclipse, is certainly abstract, and it is because it is abstract, or in the Bergonsian phrase " spatialised," that he refuses to predicate such a future of the free self in duration. But none the less such a predictable future is less abstract, less spatial, than the transitory present. The root of the error here is the separation of spontaneity from determination. Bergson avers that it is necessary for the sake of clearness in thinking to make this separation. But on the contrary, it is just because this separation is made that determination becomes a relative mechanism, and spontaneity falls towards contingency, and becomes arbitrariness of action, miscalled " liberty " of choice, or mere exercise of will, miscalled " free-will ". This same abstraction produces the one-sided theories of Intellectualism and Voluntarism. Bergson plies a strong polemic against Intellectualism but precipitates himself into the errors of an overstrained Voluntarism. This we can see in his treatment of the notions of past and future.

Intellectualism emphasises the one and Voluntarism lays stress on the other. In pure duration they ought to be transcended. But in Bergson's account of pure duration, he brings back the notion of the future which he ought to have left behind. The past and the future are abstractions which condition one another. The one is the sphere of necessity, the other of arbitrariness or caprice. If the one is transcended, so must the other be. One of the striking observations of Bergson is that our prediction of the future (as e.g. an astronomer's prediction of an eclipse of sun or moon) is exactly like our remembrance of a past

event. Both processes consist in the telescoping of time, in the foreshortening and impoverishment of it. An event predicted at once becomes a memory. It is as if it had happened. Similarly, every remembrance of the past becomes an anticipation or prediction of the future. Memory is a translation of the past into the future, just as prediction is of the future into the past. It is because I suppose myself to have a past that I also suppose myself to have a future, and it is my anticipation of my future that determines my interpretation of the past.

The analogy of the past to the future can be shown in another way. Bergson points out that natural science in predicting the future deals only with the termini of intervals, never with the "that" which "dures" through the intervals. The future as such is never lived through, it never is actual experience. The same thing may be said about the past. Memory never deals with what "dures," but only with certain points in the past. The past, paradoxical as it may sound, is never, has never, been lived through. The past is not immediate experience at all, it is an analytic reconstruction or destruction of experience. It is putting the same truth in another way to say that both the past and future are abstract, not real. Bergson shows how, in order to account for some surprising event or peculiar coincidence in our experience, we invent or imagine a secondary series of events which we place behind, or imagine as a past for the first event. This shows that the past is abstract and analytic, the result of intellectual manipulation. The past is hypothetical, just as much as the future is.

Now, when we are in pure duration we can neither turn back to the past, nor anticipate the future. Psychic states, as Bergson insists, never repeat themselves. Supposing the past could be known, we could not know it without repeating it. And conversely, I could not think of going back to the past, unless my experience was banal, unless I were out of pure duration, unless I repeated, or supposed myself

to have repeated, the past. For the absolutely free self there can be no past.

The objection to Bergson's line of procedure is that he does not apply the same mode of treatment to the future that he does to the past. He shows that the free self must transcend the abstract past, but not that it must equally transcend the abstract future. Pure duration or freedom is the form which our conscious states assume when our "ego lets itself live," and when it refrains from separating its present state from its former state. But to be consistent, we must go further than this. We must assert also that in pure duration, or in freedom, there can be no separation of its present state from its future state. For freedom there can be no future as there can be no past. Thus, he says ("Time and Free-will," p. 198): "Therefore it will no longer do to shorten future duration in order to picture its parts beforehand". The principle here laid down, that duration cannot be shortened, i.e. made abstract, is correct, and we have shown our full appreciation of it. But Bergson elsewhere betrays the fact that he considers duration to be in some sense future, which it cannot be on his own principles. He assumes that the whole of its past is implicated in, or inflected into the free ego, and that the free ego carries its past along with it; but that it has to wait for its future, or to go on to meet it. The truth is that the whole of its future is inflected into the free ego, and that it carries along with it not only its past but also its future; that, in fact, for the free self, the separation of past and future does not exist. Yet in reading the pages of Bergson, in his description of duration, we find a continual suggestion of these time distinctions which he ought to have passed beyond. Thus (*ibid.*, p. 198) he says: "In fact, astronomical prediction should be compared with the recollection of the past state of consciousness, not with the anticipation of the future one". Thus, after the rejection of definite prediction as alien from real duration, because like the past it is a spatialising of consciousness, there still

remains a vague " anticipation of the future " which belongs to duration. Our contention is that the indefinite " anticipation of the future," even more than definite prediction, spatialises duration. It not merely hinders the flow of consciousness, but produces a hiatus in it, separates duration into elements and renders them static. Pursue this road further and even the vague " anticipation of the future " itself disappears in a confused and distinctionless transitory present.

Pure duration, or freedom, is concrete heterogeneity. But just for that reason it is not confused and distinctionless. Just because duration is fluid, the distinctions come out more clearly. Unfortunately, Bergson continually represents this heterogeneity as a chaos. A chaos is an internecine strife of elements, and is as absurd a fiction as absolute homogeneity *alias* space ; it is the counterfeit of concrete heterogeneity. Chaos and homogeneity engender one another. It is just because he has set up the fiction of an absolute homogeneity or space as characteristic of outward reality, that he defines duration, the form of inward reality or consciousness, by opposition to it as chaos or abstract heterogeneity. We need not start with this opposition at all. Let us start from the truth, the unity, the fact of absolute heterogeneity or concreteness ; and let us observe further that the materialising intellect does not introduce but suppress distinctions in this diversity. My consciousness is much more full of distinctions and refinements before than after it is spatialised and written in words. Language seems to be more distinct than, but is in reality more confused than, concrete consciousness. The free self dispenses with language or artificial symbols and transports phases of consciousness, directly, without the mediation of words. Predication does not introduce difference into heterogeneity ; it is there already. The heterogeneity of the free self is realised only by intuition, beyond written knowledge.

That we are not unjust in accusing Bergson for represent-

ing concrete experience as a chaos, we may refer to the note at the bottom of page 237 of "Time and Free-will," where he says Renouvier "does not seem to have noticed that the process of our free activity goes on, as it were, unknown to ourselves in the obscure depths of our consciousness at every moment of duration, etc.". Here we see also that he identifies spontaneity or activity, which we should naturally expect to be the fullest consciousness, with something, "as it were, unknown to ourselves," i.e. with the lowest grade of consciousness, almost the unconscions.

Bergson is right in striving to arrive at truth without the apparatus of judgments and concepts, but he does not distinguish truth from the mere chaos of feelings of the individual soul. He falls into the very error of the intellectualism which he combats, in attributing distinctness and clearness of articulation to the intellect. Hence, in his reaction from intellectualism he thinks he must represent the truth of immediate consciousness as confused and distinctionless. Immediate consciousness is more clear than the intellectual reconstruction of experience because more concrete. The clearness of the abstracting intelligence is illusory, and is obtained at the cost of impoverishing reality. We can only overcome intellectualism by showing that it introduces confusion and not order. In this respect he does not carry his polemic against intellectualism far enough. To call pure duration (freedom) a state of confusion, is not to transcend the intellect, but to fall below it.

Again, as for the free self, there can be no past or future, so also for it there can be no homogeneity, i.e. there can be nothing outside it. Bergson says (p. 209): "That under the influence of the same external conditions I do not behave to-day as I behaved yesterday is not at all surprising, because *I change*, because *I endure*" (italics Bergson's). How can external conditions remain the same? Here we have the assumption of an external world. Does not the

very fact that I change, change also the conditions ? How can a continually changing being ever become aware of the " same external conditions " ? This " external " world is not a reality but an abstraction, not to be opposed to the heterogeneity of pure duration, but to be integrated with it. The whole of natural science is based on the hypostatising of an external homogeneity, and then supposing that this latter causes concrete experience. This is the root of all delusion.

Bergson errs in not showing freedom or pure duration as an actually realised fact. For him it is simply a conceptual ideal, like the asymptote which a curve indefinitely approaches. In this respect it is exactly like space or homogeneity, of which we showed that though we might indefinitely approach it, we could never actually reach it. On the contrary, pure duration, genuine freedom is real and is realised. It is not a concept, it is concrete consciousness, and is certainly not to be conceived—as Bergson always conceives it—in relation to a so-called external world. Immediately we do so, we make it an abstraction.

When we turn to examine the free self of Bergson we get the clearest indications that—just because of the presence of this supposed external world—it possesses no freedom whatever. Thus, in describing the inner causality (p. 215) which is characteristic of pure duration, or of freedom, he writes : " The future will exist in the present only as an idea, and the passing from the present to the future will take the form of an effort which does not always lead to the realisation of the idea conceived ". We note in passing the cropping out of the notion that pure duration could have a " future " before it. What is important, however, to note here is that the self is represented as free, in spite of its unrealised ideas and its unsuccessful efforts, which would seem to be more the mark of impotence than of power. What kind of causality is this ? Bergson names it inner or dynamic causality. But by conceiving the cause as " inner " in contrast to an " outer," has he not deforced

the cause altogether, eviscerated it of all dynamism, and annihilated the freedom of the self? A dynamic cause ought to have some power, but this cause, the "free" self, has but the shadow of power. It has no real power to alter the texture of the external world. The external world stands out as an alien necessity, reduces the "free" ego to powerlessness, makes the ego a mirror of itself, and reduces its freedom to mechanism, and its inner causality to an external causality.

Bergson contends that dynamic or efficient causality does not belong to the external world, but has been transported into it from the consciousness of effort. This stands in glaring contradiction to the assumption continually made, and never retracted, of Chapter I. of "Time and Free-will," that our sensations were "caused" by external stimuli. Evidently then, a very real and efficient causality belongs to the external world, not derived from the free and enduring self, but exercised upon it. There are certain states of the free self, which are not the outcome of the activity of the self, but which are effects of the external world. This creates a strong presumption against the notion that the ego has any dynamic causality which it could lend to, or import into, the external world. Bergson has given us, in his analysis, two notions of causality, the one characteristic of the external world, the other characteristic of the inner world of pure duration, but he has left out of his explanations the kind of causality that binds these two worlds together.

When Bergson accuses us of importing into external phenomena—asserted to be simultaneous—the movement, the succession of consciousness, the cogent reply is that these so-called external phenomena are phases of consciousness, and that movement does not need to be imported into them, that they never have been without movement, and never could be known apart from movement. The so-called external world is not completely externalised, it is inflected into itself, i.e. has some measure of spontaneity.

On the other hand, when Bergson assumes that the idea of necessity has been carried into, and imposed on, the movement of psychic states by an external world, nothing could be more false. Consciousness by being analysed into psychic states is externalised and affected with necessity, quite independently of an external world. And, indeed, what is the external world but analysed psychic states ?

In the state of freedom the external world is drawn back into the self. The free self cannot acknowledge any material laws to which it has to conform. In the free self there are no ideas that need to be realised, certainly not (as Bergson assumes) ideas that cannot be realised. In pure duration every conscious phase is itself realisation. In freedom the distinction between thought and will is abolished. This is the same as to say that freedom unites the notions of determination and of spontaneity. The opposition between them is unreal. Equally unreal is the opposition between mechanism and liberty of choice, effort of will, or as it may be called, pragmatic activity.

The opposition between space and contingency is unreal. Space and contingency coincide in that they are each indeterminate and inert. Bergson does not perceive, when he attributes contingency to immediate consciousness, that the natural sciences are much nearer to contingency than is immediate or concrete consciousness. Here, in the physical sciences, we have the union of mechanism with human choice, or with the pragmatic activity of the human mind. All mechanism depends on assumptions, without which it would dissolve away ; and on the other hand every choice or postulate leads to the formation of mechanism. Thus mechanism and arbitrariness are not to be opposed, as they usually are. Every mechanism is arbitrary, and every instance of arbitrary action is due to a lack of spontaneity, involves repetition, and is therefore to be properly described as mechanical.

The Proper Relation of the Natural Sciences to Psychology.

We have seen that for pure duration there can be no external world. But even for the physical sciences which, according to Bergson, spatialise duration, there can be no external world. The natural sciences can dispense with the hypothesis of an external world. They may be said to be attempts to frame an external world, but they never can succeed in doing so. The natural sciences investigate, not an external world, but phases of the human mind. The way to understand the real position of the sciences is not to refer them to an outer reality, but to refer them back to the beliefs and postulates of the human mind from which they spring. The natural sciences must be brought back to their more concrete form, nearer immediate consciousness, i.e. to psychology, and not conceived after their most abstract form, mathematics. This is the method of philosophy.

Bergson, on the other hand, frames his philosophic method on the model of the sciences themselves, i.e. he keeps up the abstracting processes of physical science. Thus, he says, in order to get pure natural science we must eliminate duration : in order to get pure psychology, we must eliminate the external world. This leaves psychology, the science of duration, and natural science in opposition to each other. Bergson himself breaks the connecting-link between the two, namely, psycho-physics. This is his attempt to correct the position of Kant, who had not allowed of any difference of the mode of apprehending inner states from that of apprehending outer phenomena ; and who had practically granted that the phases of time in the inner world could be known by the categories which apply to physical objects. Bergson forcibly separates the outer world from the inner world. This is not solving the problem, but giving it up as hopeless. It leaves the necessity

of nature unexplained and inexplicable. The true method of solution is to undo the abstractions which mark the divisions of the various natural sciences, and to bring them all back to a single science, or to a unitary point of view. We must deny the supposed *necessity* of nature and of the natural sciences. Mind is not free unless nature, and with it natural science, is brought back to relation with, and reintegrated with, mind. Instead of handing psychic phenomena over to nature and necessity, and thus making of psychology a natural science, as Kant did, holding that freedom was not a definitely known fact of consciousness, but merely a belief, or postulate, we must hand back natural phenomena to their proper sphere—duration—and show that all natural sciences are forms of psychic science. We must denaturalise or demechanise the sciences. We must interpret physical phenomena as psychical and not reversely. Physical phenomena, like psychical phenomena, do not repeat themselves. We must allow to the so-called physical phenomena a measure of the temporality and spontaneity which we have taken away from them, and thus pave the way for reintegrating nature with mind. Freedom as the basal fact is an intuition and not a "belief" or "postulate" as Kant held. On the other hand, the character of assumption, or dependence, on belief belongs to the natural sciences, and their assumed "necessity" must always be qualified by this relation to mind.

The result of the Kantian procedure had been to hand over physics, chemistry, geology, botany, biology, and psychology to the realm of natural science, of which the types are mathematics and mechanics. The result of the Bergsonian procedure would be to isolate psychology, and to take it out of the realm of natural science. But it is clear that, following the principle of duration, we must also take geology, botany, and biology out of the sphere of natural science and ally them with psychology, for none of these sciences can be studied without due consideration of

the temporal element. They are all, more or less, historical sciences. This again destroys the isolation of psychology and seems to isolate mathematics and mechanics as the sciences of the supposed purely objective. But we have given reason to hold that mathematics itself must also be removed from the supposed sphere of outward reality, and placed in duration, or time. Thus the hard and fast dualism between mind and nature—which the natural sciences seemed to warrant—is overcome, by bringing all the sciences back to the beliefs, or psychological postulates from which they spring. Bergson, by pointing out the nature of duration, and by making it a guiding principle in psychology, has revealed its presence in all branches of knowledge, and has thus annihilated all forms of natural, or mechanical, science. For in "time" there is always some measure of efficient causality or spontaneity. Mechanical science goes on the impossible assumption that all is given and static, and that the only thing to do is to analyse the given. Bergson does not see where his principle of duration carries him, or ought to carry him. He supposes that it leaves space outstanding, whereas in fact, it does away with space. Hence he still keeps up (alongside of metaphysics or intuitive cognition) an ideal of scientific knowledge of external nature, which he assumes to be absolute (and not as Kant held, phenomenal), but which is really dependent on an arbitrary postulate of the human mind.

We must reverse the ordinary point of view which makes space, the external world, and the natural sciences precede psychology. We cannot obtain a right view of nature and the sciences unless we begin with psychology, and especially with social psychology. Bergson says ("Time and Free-will," p. 236): "This intuition of a homogeneous medium, an intuition peculiar to man, enables us to externalise our concepts in relation to one another, reveals to us the objectivity of things, and thus, in two ways, on the one hand by getting everything ready for language, and on the other by showing us an external world, quite distinct from our-

selves, in the perception of which all minds have a common share, foreshadows and prepares the way for social life". He assumes that nature precedes the sciences, and that the natural sciences come before social psychology. He forces life into the mould of abstractions and perverts concrete experience. In truth, the external world is "taken out" of the social world. It is the result of analysis. It cannot be a principle of unity binding individual minds together. On the contrary, it presupposes the disunity of mind from mind. So far from being that in which all minds "have a common share," it is that which is least common to human minds.

The same analysis which sunders self from self, and externalises the states of the self, also splits off the "external world" from the self, and sets it up as an independent entity over which the self has no control. The "external world," instead of preparing the way for social life, furthers and emphasises the division of self from self. Just as the notion of space, so-called, is derived from the external world and not prior to it, so the external world is derived from language, and does not precede it. In order to realise the unity of selves, or in other words, to reach the social self, we must abolish the externality of the world, and reintegrate it with mind. Society precedes nature, and social science precedes natural science. Bergson says that language makes inner states of consciousness "public property". The truth is that before the rise of language, consciousness and its states were already "public property". Bergson's view is that language gives universality to or makes "public" the inner states of a private self, whose states are in their own nature incommunicable. The truth is that language makes more "private" and less communicable the moments of the universal self. In order to reach concrete consciousness language as well as the external world must be transcended. Just as we were compelled to deny that the external world was "common" to individual minds, so we must deny that language is a

means of communication of truth between mind and mind. Language deforms concrete consciousness, and hence cannot communicate the real. The whole realm of concrete consciousness is already pervaded by lines of communication, and is accessible to all without the necessity of the use of particular language-symbols.

It is error to suppose that we cannot receive and convey meanings apart from the instrumentality of language. It is the infirmity of the human mind that confines it to the use of linguistic symbols. Concrete consciousness needs not to be translated into forms of language at all. Language mechanises experience. As Bergson himself truly says: "The very mechanism by which we meant at first to explain our conduct will end by also controlling it". To explain is to analyse, to symbolise in words. We cannot keep our grasp of the real unless we cease to "explain" or to symbolise. We must let truth simply be itself. To say, as Bergson does, that "immediate intuition and discursive thought are one in concrete reality" is against all consistency. We must abolish symbols, but this does not mean loss of concreteness. We must eschew discursive thought in order to reach concrete reality. It is owing to vacancy, to absence of concreteness, that discursive thought arises. To fill up this vacancy, not abstract reasoning, but only positive causality, creation, or revelation of concrete reality avails.

This causality is coincident with freedom. Bergson looks for freedom in the wrong place. It is neither in the unconscious depths nor in the airy abstractions of the individual psyche, neither in the senses nor in the intellect. One might look with more right and greater prospect of success for freedom in a society of selves, whether conceived as a social organism, or as the communion of saints. But true freedom belongs only to the one Self, God, or the Absolute, with whom all forms of society must be reintegrated.

The self is free only in so far as it is in unity with the

absolute Self. The freedom which Bergson holds up to us is abstract or negative ; it is the mere possibility of freedom, or absence of external constraint. But it is quite compatible with inner constraint, i.e. with subjection to all the vices and every form of egotism. It is not a moral, much less a metaphysical freedom. But just as, in order to realise freedom, the external world must be reintegrated with the self, so also must the self be reintegrated with the infinite mind.

CHAPTER IV.

PERCEPTION AND MATTER.

Philosophy *versus* Common Sense—Bergson's Phenomenalism—His Neutral Monism—The Theory of Pure Perception: Criticism—Criticism of the Bergsonian Conception of Matter—Perception and Sensation—Sensation not a function of the Human Body.

Philosophy *versus* Common Sense.

We now come to discuss the problems which Bergson takes up in his work "Matter and Memory". And here a few preliminary remarks on his general point of view may be appropriate. Every philosopher is bound in his search for truth to begin from the naïve ordinary point of view. But philosophy, though it may (temporarily, not logically), start from the superficial view of the world, can never end there. It can never justify "common sense". Philosophy can only justify itself by passing beyond the common-sense point of view and abolishing it. It is strange, therefore, that Bergson should so constantly refer to "common sense" as a norm—should seek its support for his own views, and reciprocally support "common sense" against philosophy. A great part of the contradictions into which he falls, as well as of the difficulties of understanding him, flows from the fact that, after having theorised himself away from the vulgar standpoint, he still seeks to retain it along with his excogitated philosophic theory.

The great difficulty which provokes and incites philosophy is that of the dualism which appears in manifold shapes in

our experience,—in the contrast of matter and consciousness, body and soul, the world and God. To appearance, we are in the presence of two different kinds of reality, which cannot be expressed each in terms of the other. A glance at the history of philosophy shows how much this problem exercised and perplexed the minds of philosophers. Bergson is in the line of this philosophic striving, and busies himself with the same problem, which in the form of the opposition of thought and extension, and of noumena and phenomena engaged the minds of Spinoza and Kant respectively. One crucial form of this problem is that of external perception.

The question is : How does this appearance of externality arise ? How does the external world travel into my mind ? How am I, apparently, compelled to acknowledge the existence of things different in nature from myself, things mindless and lifeless ? Common sense, feeling no contradiction, finds no problem here. But philosophy craving after unity finds our ordinary consciousness by no means self-explaining.

Now Bergson not merely starts from the basis of ordinary consciousness, but professes in some sense to justify it. Hence, in the many passages in which he develops and expounds the ordinary consciousness, he is seen giving his approval to a doctrine of realism. Realism is the philosophy which naturally springs from " common sense ". Bergson constantly protests against the " subjectifying " of our perceptions of the external world, i.e. against considering them as states of the perceiving mind. What we perceive as external, is external. There is something real outside us he holds—without specifying exactly what this *real* is. The secondary sense-qualities, like colour and sound, belong to the " real " no less than the primary sense-qualities. The world is not a projection of our states of consciousness. When I localise a perception or sensation in space, the perception or sensation is there where it is localised.

There is much of this strain of ordinary naïve realism

in Bergson. It requires little insight to realise this point of view, and if this were all, it is difficult to understand how there should be any philosophy at all. Philosophy would then consist in holding consciously what common sense holds unconsciously, or in hardening into a rigid theory the ordinary opinions of the untutored mind. But Bergson does not abide by this *prima facie* view. It remains, indeed, in his philosophy as a dead weight, unassimilated to the rest of his doctrine, causing perturbation to the student, and setting him on a false track. But Bergson profoundly modifies common-sense views in two ways: first, in the direction of a thorough-going phenomenalism; second, in the direction of a neutral or agnostic monism—both of which are incompatible with realism. He teaches (1) the relativity of our conscious perceptions to the activities of the human body and the needs of the self; (2) that matter and human perception are not disparate; i.e. the material object partakes of the nature of our perception, and our perception partakes of the nature of matter. Let us consider these two points in succession.

1. Bergson's Phenomenalism.

This is one of the most striking and illuminating points in his theory. Common sense takes the object as independent; it neglects or ignores the relation of the object to the human organism. Bergson constantly emphasises this relation. Instead of regarding, as common sense does, our bodies as on a level with objects of the material world, he considers human bodies as different from other "objects," and reduces our image of the external world to be a function of our bodies. Things take position, or conform themselves, according to the convenience of our bodies, and therefore assume a character determined by the movements designed by the human body on the object. The mind or the body always detaches from the objects certain aspects in which

it is itself specially interested. Human perception never leaves the object as it was or as it found it. It diminishes the object. For it the object is a remainder left, after that which does not interest our needs or our activities is set aside as of no account. Our perceptual world is a scheme, filled in only with those needful details, which suffice to represent (1) the possible action of things on us; and (2) our eventual action on things.

The human representation depresses the reality of the thing and turns it into a tool. The body negatives a part of the sense-object, and thus isolates and throws into relief the other part, which is thus posited, and becomes our "representation". By the "representation" we nullify the relation of any particular object to other sense-objects, abstract it from its natural environment in order to bring it into relation to human needs. Thus the representation does not give the real nature or action of the thing, that is to say, does not translate the movement of the thing in relation to its natural surroundings. It only gives its "virtual action," i.e. what, in certain contingencies, it might do to the body, or might be willing to suffer from the body.

This is a thorough-going phenomenalism, which makes our perceptual world simply an appearance for the subject. The world on this view varies for each individual. On this road we can never reach an independent real world, such as is postulated by realism. This view is perfectly consistent so far as it goes, and if it had been thoroughly worked out to its logical conclusions, and left uncontaminated by other views, it would have given a complete deliverance from the superficialities of common sense and paved the way to a sound intuitional philosophy.

The Bergsonian phenomenalism which he expounds with a wealth of detail and illustration, that leaves nothing to be desired, is a perfect rendering of the procedure of the natural sciences. It is a theory of perception which exactly suits the modern scientist, who deals not with things, but

with certain aspects of things. It is natural science which subjects objects to the sense-organs, depresses the reality of things, turns them into instruments, and makes them convenient for human manipulation. Of course science, in doing so, is simply following out logically the common-sense view of things. Natural science is thoroughly pragmatic, i.e. motived and conditioned by human utility. It does not penetrate the real nature of things. Human wants dictate the methods of science from the very start. Humanity uses its knowledge to increase physical comfort. Scientific knowledge is relative to human convenience. When we extract ore from the bowels of the earth, or cut down a tree, or kill or domesticate animals,—what evidence is there that this treatment was what these things or beings were intended for? In fine, scientific knowledge is acquired, owned, and used by the human being, but its relation to the real is unknown and undetermined. Is this pragmatic phenomenalism consistent with the strain of naïve realism, with which the philosopher started, and which he never gives up?

The phenomenalism of Bergson is given in the following statement ("Matter and Memory," p. 8): "I call matter the aggregate of images, and perception of matter these same images referred to the eventual action of one particular image, my body". This distinction appears again as that between the "presence" of an object and its representation. The first, the world of images, is that out of which the second, the realm of perceptions, is carved.

Whence, then, comes the world of images? How do we come into relation with it? How do we reach the presence of an object as distinguished from the representation of it? It is clear that we cannot arrive at the reality of the object at least by way of external perception. For it has to be observed that the representation or perception is something taken *from* the object; it is always abstract. The world of objects never can be completely known by this

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method. There is a gulf between " thing " and " representation " which cannot be bridged. Perception and image never coincide. The world of images, which the philosopher assumes, can never come wholly within the sphere of perceptive consciousness.

The agnosticism herein implied is the very negation of philosophy. It is clear from the appearance of this agnostic element in the thinking of Bergson, that the " world of images " is not a known fact but a hypothesis. Bergson, indeed, freely allows that it is a hypothesis, but he is wrong in asserting that we are *compelled* to adopt it. In philosophy all hypotheses must be carefully scrutinised. The objections to this hypothesis are manifold.

(*a*) Bergson starts from the external image or object, whereas he ought to have started from conscious perception. Is it not clear that the " presence " of an " image " can only *be* for consciousness? He commits the fallacy of deriving perception from the image-object, when the image-object itself presupposes perception or representation. The " world of images " is formed out of perceptions; it cannot even be hinted at without representation. It is surprising that Bergson should allow himself to be misled in his philosophy by what appears to be considerations of etymology (*vide* " Matter and Memory," p. 27): " It is true that an image may *be*, without being perceived; it may be present, without being represented; and the distance between these two terms, presence and representation seems just to measure the interval between matter itself and our conscious perception of matter ". Because the word " representation " is derived from the word " presence," it does not follow that the living process of representing is derived from the " presence " of an object. It does not follow that representation is posterior to presence or presentation. Language-analysis does not necessarily give the key to the correct relation between the two. Naïve realism, which, ignoring the subjective factor, seizes upon the superficial aspects of things to the neglect of their

deeper nature, makes "representation" secondary to "presence". But what is first in time is often last in logic. Representation is more immediate to consciousness than an object present. The point of view of "representation" is more fundamental than that of "presence". Hence, in philosophy, we must start from the first, not from the second.

(*b*) The "world of objects" is not real but phenomenal, not less phenomenal than the realm of perceptions, but more so. We must reverse the Bergsonian line of thought. That process of diminution of reality, which he assumes to carry us from the world of outer objects to the inner world of perceptions, really carries us from the world of representation to the sphere of things or sense-objects. At the point of view of external things we are further away from the real than at the point of view of representation. The perceptual process is a truncating of reality (which is mind and not matter), a severing of its unity for the sake of human needs external to it. The "thing" or, as Bergson prefers to call it, the "image" is not the reality from which this process starts, but the last and final result of it. The thing is not the unity upon which perception depends, but is the outcome of the very division and splitting up of reality, which scientific perception brings about, and which it aims to carry as far as possible. Nothing can be more pragmatic and utilitarian than the "thing". To assume "things" before the perceptual process is to put the cart before the horse. The process, which leads to "thinghood," which takes perceptions out of the flow of concrete life, solidifying and immobilising them, is a minishing of reality. The "world of objects" is the last result of the phenomenalist outlook. The truth is, not that the sense-object abandons a part of its reality to constitute the representation (as Bergson avers), but that the concrete representation abandons a part of its truth to constitute the sense-object. This perceptual process, which carries us from the real to the relatively less real, leads, not to knowledge, but

to ignorance. It is the thinning out of abstractions to their furthest limit.

Bergson asks the question not: How are perceptions developed? but: How are perceptions delimited? He assumes that our perceptions are a relative ignorance, that our ordinary perceptions are but a selection out of a number of possible perceptions. But this selection involves not merely a diminution of quantity, but an alteration of quality, and therefore a perversion of truth. By refining upon these limitations knowledge could not be developed. To delimit perceptions, i.e. to constitute things, is to sink into materialism, and to deepen ignorance.

The sense-object is an abstraction from the perceiving subject, not an independent reality upon which the subject is dependent. That independent reality which gets "represented" in the perceptions of the subject is not a world of images, the objective world so-called, but concrete experience in which the subject shares. Just as the "material" world is but a "representation" or abstraction of the subject, so the experience of the subject is but a representation or abstraction of the One Mind.

To sum up: The world of images supposed independent of and external to the mind is a gratuitous assumption. Phenomenalism and ordinary realism, so far from keeping comfortable company together, clash.

2. Bergson's Neutral Monism.

Curiously enough, Bergson has another strain of thought, which we have called neutral monism, which is certainly incompatible with realism, and we believe also incompatible with phenomenalism. Bergson opens his book, "Matter and Memory," by declaring that it is "frankly dualistic". But the logical difficulties that stand in the way of the assumption of an external world, are so patent that they

cannot be shirked. This " monism " is directed to overcome these difficulties, as well as to avoid the solutions of them given by realistic and idealistic theories. He does not try to deduce matter from mind, or mind from matter. He rejects the distinction between them. Matter and mind are not disparate, but shade off into each other. Reality for him is neither extended nor inextended. Extension and consciousness are limiting conceptions, between which the real varies. What we regard as mental partakes of materiality, and what we regard as material partakes of mind. Matter and mind are not opposed to but compenetrate each other.

In pursuance of this line of thought, Bergson modifies the common-sense notion of a material world by calling it an aggregate of images. " Images " partake both of matter and mind, or rather, do not presume any separation between them (*vide* " Matter and Memory," p. 30) : " There is for images merely a difference of degree, and not of kind, between *being* and *being consciously perceived* ". We never have absolute matter or absolute mind, but something which manifests each in varying proportions. We apprehend the nature of any reality, not by defining the fixed limits in which it is enclosed, but by showing the line of direction in which it moves. For nothing is static, everything is in flux. Matter and mind simply represent limits to which the various real things or processes tend to approximate.

This is a standpoint properly involving the abandonment of dualism which, however, Bergson inconsistently seeks to maintain along with the other view. Monism of some kind is the true starting-point of philosophy. Philosophy must begin, not with the assumption but with the declaration that reality is one. This is the primary intuition of philosophy. Without this philosophy is not even born. Unity is the axiom or self-evident truth serving as the basis of investigation. But still this intuition of philosophy does not give us the licence of asserting

unity where none has been shown, nor deliver us from the trouble of opening a way whereby dualism can be escaped. This is a charge that can legitimately be levelled against the monism of Bergson. Bergson does not see the necessity for a unitary starting-point. Hence his thinking is continually traversed and confounded by dualism. But so long as a dualistic element remains in our experience, philosophy has not done its work. He does not see that dualism is the stumbling-block which he has to remove. He palliates dualism, but does not overcome it, or overcomes it in name but not in fact. By a change of nomenclature, by calling objects "images," we do not alter the essentials of our difficulty, much less solve it.

The notion that reality is a materio-mental amalgam is unintelligible and valueless. It is a philosophoumenon in the bad sense, it is a speculation quite alien to experience, and suits ill with the positive trend of the Bergsonian philosophy which counsels us not to indulge in speculation. Bergson himself supplies the corrective of his monism; for besides the notion that matter and mind are diverse aspects of the one experience, he makes use of an idea which is contradictory of it, namely, that matter and mind are continually springing away from each other, that their inherent tendency is to diverge, that they form, not a unity, but an opposition. This, we believe, and we shall afterwards attempt to show, is the key to the true relation of matter to mind. If mind and matter diverge, we must give up the neutral monism altogether, and either fall back again on the dualism which we regard as impossible, or reduce the various forms of matter to the level of phenomena, and establish not a neutral monism, but a definitely idealistic monism.

Bergson seeks to fortify himself against any form of phenomenalism or idealism by his curious and interesting theory of "pure perception," which we shall now proceed to investigate.

The Theory of Pure Perception: Criticism.

Bergson was inevitably driven by his assumption of an external world to frame, or rather invent, a theory of pure perception. As he has shown, our ordinary perceptions humanise the real, grasp in it only that which interests the subject, modify the real in the direction of making it useful. The natural result of this mode of perceiving would then be to take us further and further away from the real. Conscious human perception would be blighted with the inherent defect of being incapable of grasping the whole of the real world. Bergson, indeed, assumes that human perception holds within it *part* of the real. But how we know this is not apparent.

It was therefore necessary to assume some kind of perception, different from human perception, which would "touch" the real. Thus arose the notion of a pure perception which would connect the world of images with mind. Conscious perception would correspond to the web of human representations. Pure perception would correspond to the world of images. Pure perception is that state of the subject in which the image is "present," as distinguished from being "represented" through the refracting medium of the human mind. It is objective consciousness as opposed to subjective consciousness. It gives immediate contact with reality. Here, it is supposed, there is no relativity. Here knowledge is uncontaminated by the one-sided utilitarian proclivities of the percipient, and free from the impurities introduced by memory. Pure perception puts us "in the very heart of things". It is the limit at which the human mind counts least and the object counts most. It is "the instantaneous vision of the real"—material consciousness, or the consciousness of the external.

What is most astonishing, in view of Bergson's protests against speculative inventions, and his exhortations to

come back to "the immediate deliverances of consciousness," is that this account of perception is consciously put forward as a *theory*. Pure perception he declares to be ("Matter and Memory," p. 26) "a perception which exists in theory rather than in fact". Can "a perception which exists in theory rather than in fact" be a perception at all? Is not pure perception an assumption as baseless and needless as the "world of images"? Can this pure perception, supposed to be the very counterpart of objective reality, be anything else than a psychological figment?

As has already been pointed out, Bergson takes the right of postulating without explanation or defence the whole world of "images". He makes a similar assumption with regard to pure perception (*vide* "Matter and Memory," p. 34): "As for perception itself, in so far as it is an image, you are not called upon to retrace its genesis, since you posited it to begin with, and since, moreover, no other course was open to you. . . . What you have to explain, then, is not how perception arises, but how it is limited, since it should be the image of the whole, and is, in fact, reduced to the image of that which interests you." He seeks, therefore, to explain our actual ordinary perception by reference to an assumed "pure" perception. Is not this to explain "*obscurum per obscurius*" or "*idem per idem*"? In philosophy our basis can be no postulate, on Bergson's own showing, but an intuitive fact; he was bound to reveal the intuitive basis of pure perception, or to point out in an undoubted manner how it could be found. In virtue of Bergson's own statements (*ibid.*, p. 85) which he reiterates, that in pure perception we have "a reality intuitively grasped," the contradiction between his claim that pure perception is an intuition of reality, and the avowal that it is a theory and not a fact, is all the more glaring.

Bergson tries to define pure perception in such a way as to differentiate it from ordinary human perception. But

he cannot do so without introducing the plainest references to the perceiving subject. A pure perception is that which ("Matter and Memory," p. 26) "would be possessed by a being, placed where I am, living as I live, but absorbed in the present and capable, by giving up every form of memory, of obtaining a vision of matter both immediate and instantaneous". Who is this hypothetical being, possessed of pure perception? He is "placed where I am, living as I live". He can be none other than a human being, and pure perception can only be a form of human perception. If by a "pure" perception be meant one unqualified by the nature of the subject, then such a perception is impossible to achieve, or conceive.

Confusion is caused by the fact that the same general term, "perception," is used for a mental process, which grasps or touches the image, and for a mental process which "limits" the image. A pure perception, if such be conceived as revealing the real, ought to be fuller, more concrete, than ordinary perception, but, as defined by Bergson, it is evidently more abstract; it ought to undo the distorting action of the human mind. But instead, it intensifies this distortion until it reaches its limit in the lowest degree of subjectivity, i.e. practically in the stoppage of all mental action whatsoever. But at this limit, so far from being nearer the real object (which is not to be confounded with the sense object) we are further from it.

Bergson assumes that pure perception grasps or touches the real, before it has been altered by human perception. The question is, therefore: Is there any state of consciousness which can properly be called a pure perception, or intuition of matter? We have shown already that the world of sense-objects which Bergson assumed to be more ample, more concrete, than the perceptual world, was in truth more abstract—that it was posterior to, not prior to, the realm of representations; that the movement from the second to the first involved a relative ignorance, a partial obscuration of reality. Now Bergson makes a

similar assumption, namely, that matter is prior to the world of images, and the knowledge of matter wider than the knowledge of images. Is it not plain, however, that, just as outer images are less than our perceptions, so matter is something less than these images? Is not the so-called perception of matter the last term of the process of abstracting and "reducing" reality? Bergson himself says that conscious perception arises with the obscuration of the image, is indeed one with this obscuration. Is it not this obscuration itself that produces the consciousness of materiality? To assume that the real was material before this obscuration occurred is a gratuitous assumption. The so-called material world is more abstract than the world of objects, alias, the world of "common sense"; it results from the disintegration of the qualities of the "objective" world, just as this again arises from the dissolution of our more immediate representations.

Let mental "obscuration" proceed until the windows of the mind are shut up—and matter is the result. Matter "appears" at the point where perception stops. Material perception is a contradiction in terms. It is false to say, as Bergson does, that perception of matter is less than matter. On the contrary, even the lowest sense-perception is something more than matter.

We enter a labyrinth of confusion, when we read (*ibid.*, p. 48): "In the second hypothesis" (the one which he adopts) "an ever-deepening knowledge of matter becomes possible. Far from depriving matter of anything perceived, we must, on the contrary, bring together all sensible qualities, restore their relationship and re-establish among them the continuity broken by our needs. Our perception of matter is, then, no longer either relative or subjective, at least in principle." Here he equates pure perception with natural science. But natural science takes away life and consciousness from "matter". An ever-deepening "knowledge" of matter means an ever-deepening ignorance of reality. Natural science disintegrates the

sensible qualities, and so far from re-establishing among them the continuity broken by our needs, it re-enforces the utilitarian tendency to analyse and dissociate concrete qualities. The world of the physicist is filled only with the attenuated shadows of sensible objects, and manifestly results from the dispersal of the qualities of concrete experience. This disintegration of qualities and materialism are one and the same thing. It is absurd to speak of an ever-deepening knowledge of matter, since there is no "matter" to be known. Science itself tends to dissolve matter into nothing. Matter is something negative. The more you know about it, the more its nonentity is shown up. We reach the result, seemingly paradoxical, but perfectly consistent, that this pure perception, or natural science, so far from being an approach to absolute knowledge, is the most relative and subjective (in the bad sense), and cannot claim to reach the real. When the dispersal of qualities is carried to its limit in materialism, then there is, properly speaking, neither subject nor object—there is simply nothing. If our ordinary perception, instigated by the multiplicity of our needs, does dissever—not matter, as Bergson assumes, but—the real; and if we seek to restore the continuity of the qualities of the real, then, we are driven to conclude, we must abandon the way of natural science, or of pure perception, altogether.

We thus deny even the possibility of a "pure" or material or external perception, and contest the validity of that mental process which tends to realise itself in an "external" perception. We contest the tacit assumption that the "world," which the philosopher makes it his business to "know," is, in itself or in any of its aspects or elements, material at all. Bergson himself seems to allow the legitimacy of this point of view, by calling sense-objects "images". But he does not alter thereby his real position. This change of name is a mere sleight of hand, which, far from offering a real solution, serves only to mislead the unwary. The "image" remains material in some sense,

i.e. as external to the mind, though the language in which it is described or hinted at may be non-material.

Let us enlarge for a moment on this point. Bergson sets aside the use of the term "objects," on the very good ground that it begs the whole question in dispute, whether the objects are material or not. He therefore adopts the term, "world of images," which certainly does not imply any hypothesis as to the materiality or non-materiality of the real object. But he gets out of one piece of perplexity by introducing a double confusion: (1) he constantly applies the epithet "material" to the "image," thus taking away all reason for the change of nomenclature; (2) against the natural use of the word "image," implying an "original," from which it is derived, or a reality of which it is a copy, he constantly implies that the "aggregate of images" is itself original, something ultimate. In fact, he assumes that the world of images is the real world, or an essential or irreducible part of the real. Had he equated the world of images with the "world of representation," not with the presence of real being, we could have had no quarrel with him. This would have been a natural use of terms, "representation" or perception being held to be an "image" or copy of real being, and the "image" being held to be not material nor quasi-material, but purely mental. But Bergson, by world of images, refers to an outward reality, and we see no reason for following him in this assumption, or in his special use of the term "image".

According to Bergson, reality, in order to be "perceived," must be made to abandon certain of its aspects. Perception is the lessened being of the real. It arises through the isolation from each other of parts or elements of the real. Now, whilst fully admitting that human perception thus disturbs or distorts the relations of the real, we cannot agree with the supposition of Bergson, that reality, before the advent of the perceiving subject, is material, or endued with a tendency to materiality, and that, in the process of

perception, this reality is dematerialised and becomes mental picture or representation. The opposite is the case; that just to this sundering of the Whole, and isolating of its parts, is due its supposed materiality. The "real" is thereby reduced to an "object". The "subjectifying" of the real develops the tendency towards materiality, without, however, reaching "matter". Sense-perception is the outgrowth of the human mind which thereby introduces materiality—which is no property of the real, and would not appear to any mind that cognised the real in an unbiassed manner.

It is this illegitimate process of abstraction, called sense-perception, which reduces the "real" to an "object"—which also at the same time materialises the human personality, and turns the soul into a "body". It is this materialisation of the personality, expressed in the formation and use of the sense organs, which is logically prior to the materialisation of the world. Materiality exists in the human mind before it is found in the outward world.

Again, it is this subconscious process of abstraction which is at the root of the notion that it is by mechanical laws that the objects of the world are linked together. Bergson is wrong in assuming that the world ruled by mechanism is the real world, to which perception is contingent, and of which it abstracts a part. Rather it is just this mechanical world, which subjective perception constitutes, and that in whole and not in part.

In order to figure to ourselves what Bergson means by pure perception, we must think of the perception of the physicist or chemist. The natural sciences give the nearest approachable examples of that pure material perception, which we have shown to be in itself impossible. The theory of pure perception is made to suit the natural sciences, which develop ordinary natural realism into positive dualism, and strive to carry this dualism to its furthest extent. Pure perception, if it means anything at all, must be the opposite of pure knowledge. For if pure knowledge means

the interiority and union of knower and known, pure perception means their absolute externality. Instead of putting us into " the very heart of things," it must put us beside ourselves, and prevent us from getting deeper than the mere superficies of things.

The mistake of Bergson is that he fails to see the consequence of his own theory that perception does not aim at pure knowledge, that it is orientated towards practice, and moulded by the needs of the material life. In spite of this assertion, he claims that perception is not relative, but in some sense absolute, and is on the line of real Being. The proper consequence to draw was that perception was an illegitimate mode of reaching knowledge. The real world can be apprehended only along that line of activity, which reverses the descent towards pure perception, and proceeds towards pure intuition, wherein all externality vanishes, and there is direct " presence " of the known to the knower.

The theory of pure perception is meant to guard against subjective idealism. Bergson insists on the necessity of the physical object to the subject, but does not equally insist on the necessity of the subject to the object. He writes that, though our body was suppressed, the world of objects would still abide. If by " world of objects " is meant the world as we ordinarily view it, logic compels us to deny this. That world is mediated to us by our bodies, and is essentially conditioned by the nature of our bodies. We cannot agree with the speculation of Bergson (" Matter and Memory," p. 40) " that matter should be perceived without the help of a nervous system, and without organs of sense, is not theoretically inconceivable ". We could not have the consciousness of matter without previously materialising ourselves in body and sense-organs. And this materiality which we find in ourselves, i.e. in our bodies, is not due to the reaction and influence of an external " matter," but due to the fact that the subject itself is invested with this tendency.

Objective realism says that the perceived thing is *being;* it makes the subject dependent on the object which is outside and beyond the subject. Subjective idealism says that the being of a thing is to be perceived; it makes the object to be included in the subject, and its nature dependent on the subject. As against crude realism, subjective idealism is undoubtedly right, and supplies the correction of it; and the phenomenalistic strain in the Bergsonian philosophy would allow for all the truth that is in subjective idealism, were it not traversed by the aforesaid tendency to objective realism. The error of subjective idealism is not in its undermining of the "reality" of our world of seemingly solid objects, but in its tacit assumption that the only mode of "being" is that of sense-objects, and that the only way of knowledge is by the avenue of the senses. This error can be offset, not by a doctrine of realism, but by resort to concrete intuition.

The following passage ("Matter and Memory," p. 30) casts a singularly illuminating light on the Bergsonian conception of a pure perception, at the same time that it manifests the impossibility and absurdity of it: "In one sense we might say that the perception of any unconscious material point whatever, in its instantaneousness, is infinitely greater and more complete than ours, since this point gathers and transmits the influences of all the points of the material universe, whereas our consciousness only attains to certain parts and to certain aspects of those parts."

How can a material point perceive, ask any questions of the material universe, or receive any answers to its questions? Is not a material point dependent on perception, and just for that very reason itself incapable of perception? Being an element in a universe whose parts are external to each other, is it not by its very limitations struck with the defect of non-mentality? Would not all the relations of these material points to each other be on the footing of pure externality, i.e. of blank ignorance?

Could these material points play their part in the perceptual scheme, unless they were deprived of all inwardness, i.e. unless they were absolutely mindless ?

Waiving these objections, we might plausibly allow that the consciousness of an amœba would be the nearest practicable equivalent of the mentality of a material point. But what kind of universe would the amœba take up relations to ? Would it not be the emptiest abstraction of a universe ? And can the mind of man descend to the condition of an amœba or of a material point ? To do so would be to perceive nothing. It would be not to come into the wider relations of objects, but gradually to fall outside all relations till the point of unconsciousness or the unconsciousness of a point was reached. The subject cannot degrade itself to the level of an object. It cannot abnegate its own nature ; it cannot strike itself with impotence. It cannot pursue opposite roads at one and the same time. It cannot be mind, and at the same time strive towards materiality, which is mindlessness. Matter is fundamentally the unknown and unknowable. The " intuition of matter " is not to be wished for, much less striven after. It is the condition from which Philosophy has to deliver us.

Matter is not an external perception, but an internal imagination, not objective but subjective, not the impression of an outward reality but the expression of a mental fiction, not something found but something invented, not subject to law but entirely contingent.

The theory of pure perception is not merely useless but positively harmful. It must be cut away before any real advance can be made—all the more so, that it is inessential to what is really valuable in Bergson's thought. We cannot dispel the difficulties of natural realism by an arbitrary speculation. The objection to the theory is that it shifts dualism into the sphere of unconsciousness, i.e. beyond the possibility of a solution at all. It thus makes the incipient dualism of ordinary consciousness radical and

irretrievable. It ought to be the purpose of Philosophy to shift the dualism within consciousness, that is, to show how it arises, and thus pave the way for a method whereby it can be transcended.

The statement of Bergson that there is " only a difference of degree between *Being* and being perceived," if *Being* be interpreted as material being, and be granted an independent existence, would, if rigidly pressed, involve sheer materialism, inasmuch as perception would have to be regarded as a phase of matter. It is only right, however, to point out that Bergson does not go this length. His materialism, such as it is, is always modified by the thought that what is real is a blending of matter and mind. But this notion it is impossible to develop consistently with his premisses. Matter and consciousness, as he treats them, are abstractions and only exist by opposition to each other. Just because subject and object are defined by contrast, it is impossible to speak of a blending of them together. The object can only be an object, just so far as it is not subject. The subject thus tends to deprive the object of life and consciousness and to reduce it to the level of an instrument. Hence the impossibility of speaking of the " perception " of a material point. In the natural sciences, at any rate, the object cannot assume the qualities of the subject nor the subject the qualities of the object. If we start with this dualism in any shape, whether in the form of the contrast between consciousness and matter or between subject and object, it cannot be spirited away. It remains to disturb thinking to the very end. The subject-object relation conceived in this way is illegitimate : it distorts our whole view of reality.

The subject being independent of the object is not bound to take up any relation to a so-called object or to develop out of itself an object. The relation of object to subject only arises by the disintegration of the consciousness of the subject. The object is the subject narrowed or limited. The subject-object relation is due to the failure

of cognition. Objects, when properly cognised, and integrated with consciousness, are found to be phases of the subject. We must withdraw from the terminology descriptive of consciousness such epithets as imply the existence of independent "material" objects. Such language, as that "perceptions are extended," is misleading, if not absurd. Perception can only be in so far as there is inextension. If we speak of perceptions as more materialised or more spatialised than others, this is only a way of expressing the degrees to which the subject is phenomenalised or abstracted. We have only one type of existence, not two types. The dualism of matter and mind is not real, seeing that one of the sides of the supposed opposition is non-existent.

The Bergsonian Conception of Matter: Criticism.

The Bergsonian conception of matter is full of contradictions. He speaks of matter, on the one hand, as a series of instantaneous visions of the real, i.e. a series of absolute differences; on the other hand, as tending to the homogeneous, i.e. absolute sameness. As an absolute difference is an indiscernible difference, and as absolute sameness cannot be perceived, absolute difference and absolute sameness come to the same thing. But matter under either aspect is a fiction. Matter cannot be constituted a unity. Here the abstract difference between mind and matter is developed, and logically is necessitated to develop to an infinite number of differences. Dualism becomes radical pluralism. Instead of two realities we must postulate an infinite number of realities. This all follows from the primary assumption of a reality different from mind.

Bergson says ("Matter and Memory," pp. 76, 77): "The qualitative heterogeneity of our successive perceptions of the universe results from the fact that each, in itself, extends over a certain depth of duration, and that memory condenses in each an enormous multiplicity of

vibrations which appear to us all at once, although they are successive. If we were only to divide, ideally, this undivided depth of time, to distinguish in it the necessary multiplicity of moments, in a word, to eliminate all memory, we should pass thereby from perception to matter, from the subject to the object." This is an account of the procedure of the scientific intellect. We pass, by the method here described, from perception to matter, but not from the subject to the object. Science dismembers the conscious qualities, reducing their variety. It emphasises the difference between the perceiver and the image. It seeks to disengage itself from the rhythm of human consciousness and to adopt, or adapt itself to, a more sluggish rhythm. Bergson rightly says that this is the only route by which we can arrive at matter. But he does not observe that this is not intuition, nor does he see that it involves the giving up of intuition altogether, and a resolute perseverance on the path which would reduce consciousness to a nullity. All this is the result of assuming that we must go out of ourselves to reach reality, or else content ourselves simply with the outer skin of it. We must abandon the attempt to distinguish between one reality called " matter " and another reality called " mind " ; or between the rhythm of the human subject and the rhythm of the external image. In intuition the two rhythms are identical. We need have no fear in bringing back the image to the rhythm of human consciousness. The mind makes our successive perceptions the real moments of things. It does not turn back and reduce its own rhythm to conform to a supposed rhythm of matter. It goes forward, and seeks by union, not with matter, but with the Whole, to realise the riches of concrete experience.

Bergson's assertion that an absolute, non-relative knowledge of matter is possible, cannot stand. The mistake of Kant lay, not as Bergson supposes, in limiting the range and value of our senses and understanding, but in supposing that the senses could give knowledge, or that any knowledge

of phenomena was possible. The " pure perceptions " of Bergson are simply the " sense-phenomena " of Kant, with this difference that, whereas Kant distinguished them from the thing-in-itself, Bergson equates them with the thing-in-itself, i.e. identifies them with an entity which he provisionally terms " matter ".

Bergson says (" Matter and Memory," p. 40): " That matter should be perceived without the help of a nervous system, and without organs of sense, is not theoretically inconceivable ". But we could not have a consciousness of matter without materialising ourselves, and this fact is expressed in body and sense organs. The supposition above made is therefore absurd. There can be no direct intuition of matter.

Matter is equivalent to the unknown. The intuition of matter is simply blank ignorance. We have not to strive for the " intuition of matter ". We have it already. It is the condition from which we want to escape. What Bergson calls an increasing knowledge of matter is in reality an increasing ignorance. All advance in the natural sciences points to the same truth. All scientific " progress " reveals our ignorance of other phenomena. And in science we never get outside this vicious circle. All advance in mechanism only unveils new contingencies. Progress in science does not bring freedom but deeper slavery. Science encourages this endless variety of new phenomena, which, according to the hypothesis of mechanism, require new phenomena to explain them.

If, as Bergson asserts, materiality begets oblivion, how can there be a knowledge of matter ? On the other hand, if memory partly fashions matter, how can materiality produce oblivion, i.e. non-memory ? All these contradictions are reconciled when we recognise that what Bergson calls memory is oriented toward oblivion or unconsciousness.

When we scrutinise Bergson's description of matter we realise that in " intuition " matter is entirely dissolved.

There is nothing comparable to our perception or conception of matter in his intuition or "vision" of matter. Bergson ("Matter and Memory," pp. 276, 277), says: "Matter thus resolves itself into numberless vibrations, all linked together in uninterrupted continuity, all bound up with each other, and travelling in every direction like shivers through an immense body. In short, try first to connect together the discontinuous objects of daily experience; then resolve the motionless continuity of their qualities into vibrations on the spot; finally, fix your attention on these movements, by abstracting from the divisible space which underlies them and considering only their mobility (that undivided act which our consciousness becomes aware of in our own movements): you will thus obtain a vision of matter, fatiguing perhaps for your imagination, but pure, and freed from all that the exigencies of life compel you to add to it in external perception." One of the attributes of matter to ordinary perception is solidity, but it is only under conditions of external perception that the sensible qualities are solidified. By giving "continuity" to matter as Bergson proposes the very essence of the concept "matter" is destroyed. Again, on page 279, Bergson speaks of the *free* ego being "able to solidify 'becoming' into distinct moments and so to condense matter". But this "ability" is not the mark of freedom, but of the opposite. What is it that makes necessary this solidification of matter? It is the supposed necessity of reacting to it. Let us reject this supposed necessity of reaction, let us hold to the continuity of the real, then matter never arises. Intuition never reacts, it always reverses material inaction. Perception reacts. Bergson (p. 279) says: "The independence of their action upon surrounding matter becomes more and more assured in the degree that they free themselves from the particular rhythm which governs the flow of this matter. So that sensible qualities, as they are found in our memory-shot perception, are in fact the successive moments obtained

by a solidification of the real." In so far as we have to act on surrounding matter, we forgo independence. Again, we cannot free ourselves from the rhythm of matter without altering it and bringing it to coincide with our own rhythm. Bergson constantly assumes that the world, as viewed by intuition, could lie alongside the world of material rhythms. In truth, if you adopt the rhythm of intuition, then matter disappears. He assumes the possibility of a free "material" action. But if action has to descend to the material plane it must be necessitated. Spirit must dispense with material action. If we maintain the continuity of the real we see no need for material action. If perception became intuitive it would not impose any artificial configuration on the real, transforming it into "things". The rhythm of the real would coincide with the rhythm of consciousness. Bergson says (p. 276), that in order to reach matter we must abstract from divisible space. On the contrary, it is by putting space into reality, or by moving in the direction of space, that matter arises. And if the refraction of mental states into space produces illusion, then this illusion is matter. We cannot at one and the same time pursue the method of refracting mental states, and live on the intuitive plane. The two are antithetic.

The vibrations into which Bergson dissolves matter are abstract perceptions. They have nothing in common with the continuity of consciousness. These vibrations are the most barefaced impositions on the real. Bergson is wrong in saying that here we escape the exigencies of life. These are the result, not of pure speculation, but of a thoroughly practical interest. These vibrations have not the slightest claim to reality. Bergson seems here to go on the footing that the natural sciences are the outcome of pure speculation, and are not the expression of utilitarianism.

Bergson attempts to get at a philosophy of matter by withdrawing from the real the impositions due to practical needs. He thus gets a continuity where the extremes of

atoms and movements are dissolved. This is a " science " of matter, not a philosophy of it. We do not step hereby out of the implications of practical utility. This is only a more convenient hypothesis devised by the physicists, not a reality. This " matter " is not a continuity but an abstract homogeneity. It is like space, something that we subtend under real things in order that they may be more amenable to our action.

Wherever you have abstraction, there you have matter. Bergson seeks to obtain a philosophy of matter by abstraction. A philosophy of matter must move towards concreteness, and in its development must destroy the concept of matter.

Matter is not a continuity, because, in order to have continuity there must be distinctions. In proportion as you go from mind to matter distinctions disappear until their final annihilation in homogeneous space.

We must deny the statement of Bergson (p. 260) that " the object of science is, on the contrary, to rediscover the natural articulations of a universe we have carved artificially ". Science is precluded by its very method from discovering the natural articulations of the real. It works by abstractions, develops them, and uses them to break up the deliverances of the senses. This universal " continuity " treated by science is not a return to the concrete, or to the riches of the mind. It breaks down the mind to a momentary consciousness. It simplifies in appearance, but only at the cost of introducing artificial problems.

Bergson began by accepting the ordinary common-sense view of matter, but before he comes to the end of his speculations, he completely overturns the ordinary commonplace point of view—which, indeed, on his own principles, ought to be the most dangerous and unsafe as being infected by considerations of vulgar utility. Our ordinary consciousness of matter does not lead us into the inner nature of things. The only way to cure the falsity of this one-sided

way of looking at things is to return to the intuition of concrete reality. Bergson, in order to get this inner nature of things, pursues the road of abstraction. He says, " the nearer we draw to the ultimate elements of matter, the better we note the vanishing of that discontinuity, which our senses perceived on the surface ". Now there are two ways by which you can make discontinuity (that discontinuity which is so irritating to the speculative mind) vanish, namely, by introducing further distinctions which bridge the distinctions already there. This we conceive to be the way of intuition. It is a going on to the concrete. The other way is to simplify artificially, that is, to throw aside the aspects that bring in contradiction, to isolate, to consider one part by itself, to reduce the number of distinctions ; to close the eye deliberately to the distinctions that are there without removing them or accounting for them, or showing that they were unnecessary. This is the method of the material sciences. And this we find to be the method of Bergson. He says that pure perception places us in the heart of things. This is a view of matter not philosophical at all, but dictated by that very intellectualism against which he warns us.

We expect of a true intuitive experience that it should bring us to such a state of mind that the problems created by practical methods should disappear. But instead of that they are intensified.

Bergson seems unwilling to accept the full consequences of his doctrine that our perceptions are not pure knowledge, but are relative to our practical needs. Thus, he says (" Matter and Memory," p. 48) : " In the second " (hypothesis which he favours) " an ever-deepening knowledge of matter becomes possible. Far from depriving matter of anything perceived, we must on the contrary bring together all sensible qualities, restore their relationship, and re-establish among them the continuity broken by our needs. Our perception of matter is, then, no longer either relative or subjective, at least in principle, and apart,

as we shall see presently, from affection and especially from memory; it is merely dissevered by the multiplicity of our needs." Here the fact of the intervention of human needs essentially qualifying our knowledge is no bar to its being real knowledge. Bergson denies the relativity of this knowledge. The continuity of matter as well as its discontinuity is simply a question of human convenience. By re-establishing continuity of matter we are not taken out of the relativity and subjectivity of the human mind.

The only way by which Bergson can be made consistent with himself and the truth is by frankly accepting the relativity of our sense-perceptions. Bergson fights against this admission. But his whole mode of thinking implies it. He says that perception is a part taken from the whole. If we knew this whole, we should be able to compare part with whole and measure the extent of our knowledge. But we do not know this whole and never can know it.

There is an inherent defect in the mode of knowing which we call external perception. Bergson says that to know the whole of matter, we must approach the condition of a material point. This is sound, on the principle that knowledge and being must be one. The way by which we approach a material point is by eviscerating sense-perception of all its qualitative richness and variety, and by reducing its activity (what Bergson calls its indetermination) as near as possible to inertia. But this principle stands in palpable contradiction with the above-quoted statement, that in order to know matter "we must on the contrary bring together all sensible qualities, restore their relationship, and re-establish among them the continuity broken by our needs".

Bergson ought to have adhered consistently and steadily to his position that perception was not absolute knowledge, but only relative. For him perception measures the eventual influence of the living being on the object perceived;

or, as we should rather put it, it measures the constraint imposed by the object on the living being. The living being wants to dominate all outward things, to sublate individual differences, to make tools of all things. It wants to make all things a mere reflection of itself, and to destroy those qualities of things which have no interest for itself. This it accomplishes by the use of mechanism. The living being, both in thought and practice, strives to reduce all things to counters, to symbols and extensions of itself. This is a process that could not lead to absolute knowledge ; the world of perception is no objective, photographic representation of reality, but the reflection of the desire and needs of the living being.

Perception and Sensation.

The dualism between pure perception and ordinary conscious perception takes shape in another dualism, viz. that between perceptions which refer to the outward world and our bodily sensations. The first are localised in space filled by the material universe, the second in that part of space filled by our own bodies. The theory of pure perception was a one-sided treatment of experience, which was bound by its very abstractness to bring at once into view a neglected aspect of consciousness, namely, the bodily feelings. Whence, then, do they arise ? They are attributed to a special faculty of that privileged " image," our body. " Being " has hitherto been generally assumed by Bergson to be equivalent to the outer world ; hence there naturally arises the contrast of an inner world supposed to be " within our bodies ". Bodies not only are in the world, but have an " inner " world. There cannot be outer experience without inner experience. All natural bodies are so far capable of movement as to perform some kind of action and are thus to some degree self-perceptive, i.e.

possess affections or sensations. We are here, of course, concerned only with the affections localised in human bodies.

As they are of no use for the knowledge of the outward world, sensations are, from the point of view of pure natural science, an excrescence. In order to arrive at the knowledge of outward things we must abstract or subtract sensation from our experience. Bergson reaches the startling conclusion ("Matter and Memory," p. 60): "Affection is, then, that part or aspect of the inside of our body which we mix with the image of external bodies; it is what we must first of all subtract from perception to get the image in its purity. . . . The truth is that affection is not the primary matter of which perception is made; it is rather the impurity with which perception is alloyed."

Bergson will not allow that our inner sensations are projected into space, to constitute the external object; he holds, on the contrary, that outer images are introjected into mind in the form of representations, and there blend themselves with our internal sensations, from which, however, they differ in kind and not merely in degree. It would be presumably the business of philosophic analysis to separate our mixed or blended experience into its two "pure" elements, sensation and perception.

This is a totally confusing account of the relation between sensation and perception. It is illogical—insisting, as Bergson does, first that there are gradations where common-sense sees only hard and fast distinctions, and secondly that there is only a difference of degree between *being* and being perceived, i.e. between *being* and pure perception —not to allow also that there are only differences of degree between sensation and perception. The error in current views was not so much in the assertion of degrees mediating between sensation and perception, as in the assertion that sensation was the lower degree and perception the higher, and this is an error in which Bergson at

bottom shares. The difference between the current view and the Bergsonian is that the first assumes that perception is got by summing an aggregate of sensations, the second assumes that perception is arrived at by subtracting sensations. Against the first we have to state that perception is not the integration or addition of sensations but their disintegration, reduction and dispersal. Against Bergson we argue that we have not to subtract sensations to arrive at perceptions but rather to restore perceptions to their unity in sensations. The abstraction which constitutes the perception of an " external " world must be removed and undone in order to reach sensation. Sensation is not the impurity that is mixed with perception that must be taken away in order to clarify knowledge, but, on the contrary, perception is the impurity which arises as our concrete sensations are thinned out. Sensations are prior to perceptions.

The dualism between sensation and perception is as fallacious as that between the two kinds of perception. Just as the notion of a pure perception is made to fit the theories of the physicist, so this notion of sensation is made to suit the theories of the psychologist.

Of course, sensations are generally associated with our bodies and supposed to be derived therefrom—just as perceptions are associated with a " material " world and supposed to be derived therefrom. But, as in the one case the jump from " external " perception to an " external " world is a leap in the dark, an illegitimate inference,—so too, is it also in the case of the jump from bodily sensations to " body ". Bodily sensations no more prove the existence of a material body than " external " perceptions prove the existence of a material world.

The double faculty which Bergson speaks of, of performing actions, i.e. of making representations with a view to action, and of feeling " affections " is a fiction. There is only a difference of degree between the two faculties.

Every " representation " is at the same time an " affection "—and, indeed, if we take affection in its etymological sense, more emphatically an " affection " than our sensation. The mind is more passive in accepting the images of a so-called " external " world than in submitting to the sway of its own impulses or sensations. Our perceptions are more " affective " than our sensations.

Here we must point out an ambiguity in the thought of Bergson. He sometimes speaks as if perceptions were more passive than sensations, at other times as if sensations were more passive than perceptions. Thus, on page 60 of " Matter and Memory," he defines the relation of perception to sensation as a contrast between virtual or possible actions and real actions—which implies the superior power of sensations. But again (on p. 64, *ibid.*) he speaks of perception-sensation as the double faculty of performing actions and feeling affections. Here it is implied that sensation is more passive than perception. In order to clear up the ambiguity, it is only necessary to point out that to speak of perception as a faculty of performing actions is in direct contradiction with the notion of " perception " as a " virtual " action. Perception is not a faculty of performing actions but of pre-forming or pre-figuring future or possible actions. If we hold to this, our ideas will at once become clear and consistent. The double faculty becomes a single faculty of which perception is the lower degree. Perception is never concrete experience or positive action ; it is not, in relation to sensation, a faculty at all but an incapacity or impairment of faculty.

It is all the more strange that Bergson should hold to a hard and fast division between perception and sensation, in view of the fact that he holds sensations to be " extended " no less than perceptions. Ought not the common property of being " extended " be sufficient to establish continuity between them ? In truth, the continuity between them is the fact that neither are extended. The idea that sensations

are extended is due to the double assumption, first, that the human body is material, second, that with sufficient discrimination we can localise our sensations in various parts of the body; that, properly speaking, every sensation is attached to some part of the body, though we may not be able to tell exactly to what part any particular sensation belongs.

Here we come back again to the theory of local signs already criticised. His whole argument for the existence of local signs for our sensations savours of speculation. He cannot point in a plain and unequivocal manner to the "signs" which should indicate to what parts of the body the sensations belong. "Local" signs are not primitive constituents of sensations, but arise by the disintegration of sensations. Sensations directly experienced show no trace of local signs, and can easily be prevented from the tendency to spatialisation. Common experience shows how difficult it is to localise such sensations as feelings of pain: they tend to shift about all over the body—a fact which implies that they have no particular local sign. Common experience also shows that feelings of pain that are purely mental, and have absolutely nothing to do with any locality, may come by mere association of ideas to be attached to particular parts of the body. Even when pains which are mental are thus "localised," we have no warrant for the theory of local signs, or, in other words, for the notion of "extended sensations". The human body and its members are not material but mental; they do not occupy any definite part of an absolute space. The theory of local signs is based on the notion which we have shown fallacious, that spatial and material extension is absolute.

It is absurd to draw a distinction, as Bergson does, between the outsides of our bodies which are only perceived externally, and the insides of them which are sensed from within. The insides of our bodies are as external to us as the outsides of our bodies; and the awareness of the insides of our bodies is an "external" perception, like all

other " external " perceptions. It is impossible that by subtracting our body-perceptions, which are classed by Bergson with our affections or sensations, we should gain a " purer " knowledge of the external world. On the contrary, our whole perceptual world is mediated to us through our " body-perceptions," a term which may be used to describe the conscious states transitional between sensation and perception. The statement which Bergson makes (" Matter and Memory," p. 69), " Affective sensation is one with the necessary modifications to which, in the midst of the surrounding images that influence it, the particular image that each one terms his body is subject," is consistent only with the view that all perception is conditioned by sensation.

If we were to follow the maxim that to obtain pure perception we must eliminate sensation, then in order to have perception of the external world, we should have to suppress or discount entirely the influence of our bodies. But this is an inconceivable supposition on the premisses of Bergson, seeing that he started by referring all perception to the " privileged image," our body. Furthermore, none have shown better than Bergson that perception is not pure knowledge, but that conscious perception is through and through determined by the needs and aims of the human being. This subjectivity is summed up in sensation, which, so far from being eliminable and dispensable, is really the determining factor. We have shown already that we cannot purify the experience of the subject by disintegrating it into so-called pure perceptions. If we are to purify perceptions at all, i.e. if we are to reveal the root out of which they spring, then we must bring them back to sensation.

As before hinted, this theory of the distinction between sensation and perception is framed to suit the division of labour between the psychologist and the physicist. " Sensations " are the data of the one, as " perceptions " are the data of the other. The utilitarian bias of common life

has already transformed our sensations to perceptions and solidified them into sense-objects ; and the natural sciences re-enforce this tendency. The psychologist also, if he is dominated by the " ideals " of the natural sciences, and especially if he turns his branch of study into a system of psycho-physics, follows the same tendency and thus inclines to spatialise experience, and to localise sensations in special parts of the body. Hence arises the notion that sensations are " extended ". But if the psychologist consistently remained at the concrete point of view, he would never find sensations extended. The notion of " extended sensations " is a hypothesis engendered to fit in with other hypotheses supposed indispensable but equally questionable.

The lowest degree of sensation, the bare sense of touch, still transcends the dualism of body and external object. A tactile sensation is never a mere material contact ; it is never an automatic reply to the action of the object : it is never a mere " affect " or effect impressed in external fashion on the subject. The tendency of every theory of pure or external perception is to solve the dualism of body and external object by passing over human bodies to the side of the external object. We have shown that this method is radically false and leads to a deeper dualism. In order to pave the way for the transcending of this dualism we must adopt the point of view of a pure sensation, and not of a pure perception, i.e. we must pass over external objects to the side of the human body. Instead of extruding the human body to join the external world, we must draw all bodies within the human body and regard the world as an aspect of the human body. Those " internal " states localised in the human body (in contrast with " external " states localised in other bodies), which Bergson regards as the type of a sensation, are themselves always qualified by this contrast, and hence are reduced to the level of external perceptions. But an " internal " state is not a state localised in a human body, but a state of the

human mind. When we have integrated the world with the human body, the next step is to integrate the human body with the human mind. If perception is the lower limit at which the opposition to an external object is felt the greatest, then sensation marks the point where the opposition between external objects and our bodies disappears and thus prepares the way for abolishing the opposition between the human body and the human mind. In sensation, perception is dematerialised.

Sensation not a Function of the Human Body.

We must enter a caveat against the notion, which is the logical result of the theory of " extended sensations " or of " local signs,"—that the human body is the seat of sensation. Bergson constantly uses language that implies this dictum. He enounced in the beginning of his work, " Matter and Memory," that conscious perception, which ought by right to be coterminous and coincident with the whole world of images, was in fact limited only to a part, i.e. he declared that it was a *hypothesis* that consciousness included the whole of reality, but that it was a *fact* that consciousness was limited to a part of the world of images. We must reverse this statement and assert—that it is *fact* that consciousness is coterminous with the whole, and that it is *hypothesis* that consciousness is limited to a part, namely, the world of images.

It is only when consciousness is negatived that the illusion arises that sensation is seated in the body. This illusion is at its deepest when we suppose consciousness to be so far limited as to be attached to particular cells of the body, e.g. brain-cells. This would be the closest example of the " perception of a material point " imagined by Bergson. The brain would thus become the seat of consciousness, as the body would be the seat of sensation. Now

Bergson afterwards directs a great deal of his argument to prove that the brain is not the seat of consciousness. But we cannot see how, in his hands and with his premisses, such an argument, which is intended to checkmate materialism, could be carried to a successful conclusion. Here he gives away so much to the materialist that we can see nothing but flat contradiction between his present line of reasoning and his future emphatic polemic against the notion that the brain is the seat of consciousness.

The fallacy consists in supposing that, because the body is within the field of consciousness, therefore the body carries consciousness, or consciousness is attached in some inexplicable way to the body. This gives rise to the primitive animism of savage races—which, philosophically developed leads to the notion of a world-soul. The notion of a "soul in body" is not more defensible or more logical than the idea of a world-soul. This is the way whereby conscious states degenerate into "internal" sensations.

The fallacious notion that these sensations are the "internal" states of material bodies seems to be accepted by Bergson, as when he writes ("Matter and Memory," p. 59): "Such is indeed the fundamental difference which every one naturally makes between an image and a sensation. When we say that the image exists outside us, we signify by this that it is external to our body. When we speak of sensation as an internal state, we mean that it arises within our body." Bergson unduly materialises common thought when he says that what we mean by an external object or image is an object outside our body. What is meant by the ordinary expression, "external world," is not a world outside our bodies but outside our consciousness. Of course, if we take the word "outside" literally, this "outsideness" of consciousness is meaningless. But in common language this literal sense is always neutralised or offset by its figurative signification. It only makes

the meaninglessness of literalism still worse, if the confused idea that there are certain things outside consciousness is hardened into the assumption that consciousness is to be identified with something "internal" contrasting with something "external". Bergson seems to speak of our sensations as "in" our bodies in the same sense as we speak of the contents of a box being in the box. To say that the external world is outside consciousness is just to say that the world is an object for or "within" consciousness, not to imply that consciousness is an internal state "in" some body. To lodge consciousness within the body is to render all problems insoluble. Bergson's view of sensation leaves us with an insoluble dualism of soul and body, just as his theory of perception made for us an equally insoluble dualism of mind and matter.

Bergson says ("Matter and Memory," p. 58) that "the surface" of our bodies, "the common limit of the external and the internal, is the only portion of space which is both perceived and felt". This distinction between "perceiving" and "feeling" is fallacious, and this peculiar quality or faculty attributed to the surface of our bodies is supposititious. When I become aware of any part of the surface of the body, e.g. the face, by means of a sense-organ, e.g. the finger, then the face may be said to be both "perceived" by the finger, and to "feel" the touch of the finger. We could with equal right say that the finger is "perceived" by the face, and "feels" the touch of the face. Any part of the surface of the body can act as an organ of sense, as well as be an object of sense. But this is no peculiar power of the surface of the body. Any part of the viscera can act as a sense-organ, i.e. "perceive" the outer object and at the same time "feel" subjectively. Furthermore many objects beyond the body, such as plants and animals, can "feel" as well as be objects of perception. If so, we can regard them as extensions of the human frame, and can enter into and share their feelings, just as they can share our feelings. Many external objects, therefore, which are

supposed to be only perceived, both perceive an outer object and feel subjectively. Does not the doctrine of intuition, which Bergson afterwards develops, imply that there is a state of consciousness, in which the " feelings " of so-called outside objects are linked up with our own " feelings " ? " Feeling " or " sensation " goes beyond, and makes unnecessary, all " external " perception.

CHAPTER V.

PERCEPTION AND VIRTUAL ACTION.

The Theory of Virtual Action—Zones of Indetermination—Freedom and Contingency.

The Theory of Virtual Action.

Bergson's theory of "Action" is far from easy to understand and requires elucidation. One of his leading thoughts is the relativity of all our perceptual knowledge to action. Our perceptions are never pure knowledge, i.e. never simple "representations" of an objective reality. We never perceive for the sake of perceiving; our perceptions, not being an end in themselves, are coloured by the end in view, which is always some form of bodily action. This Bergson expresses by saying that pure perception is a virtual action. It is a mere preliminary to action, a nascent or incipient action; the mere material out of which an action is developed. Thus my perception of a tree never stops at a "representation" of the tree: it moves me either, if I am hungry, to eat the fruit of the tree, or, if I am tired, to rest under its shade, or, if it is too shady, to cut it down. My perception, therefore, varies according to my action. The "real" action to which outer perception is "virtual" is something that the body does to itself, i.e. a sensation such as (in the above illustration) either satisfied hunger, or a feeling of coolness, or the pleasure of a more extended view.

In the experience of ordinary life, our external percep-

tions are almost unconscious, or at least hardly rise above the threshold of consciousness, being reduced to a state of " virtuality " by our more interesting, more absorbing sensations. " Virtual " action is the same as mechanical or physical action. Bergson speaks as if virtual action was an actual fact of experience, exemplified in instinctive actions, or in the motions received and transmitted of material bodies. But it is clear that " virtual " action is not concrete experience ; it is abstract or depotentiated action. It is hypothetical action, such action as the scientist, for certain purposes, imagines that bodies should perform. It may also be called a contemplated, a merely possible, or future action.

" External " perception is " virtual " action, because it is only a part of the total action of the subject ; it is an element in a process culminating in a sensation ; it is semi-conscious, or only reaches consciousness in the form of a bodily sensation, or in the form of a perception impregnated with memory-images. It is " virtual," both because it is an action selected out of the infinite number of actions which the object is supposed to perform in relation to all elements of the universe, and because it is masked or overlaid by the infinity of other actions which the subject itself performs. It is the action of the subject when it is reduced to a rôle as nearly passive as possible. External perception schematises what the subject would do to the supposed object or what the subject supposes the object would do to it.

It is surprising that Bergson should place perception before sensation, seeing that he calls perception " virtual " action, and sensation " real " action. In order to account for this, as well as for the ambiguous use of the word " real," we have to note the point that Bergson regards " virtual " actions as no less " real " than the " real " actions of sensation. Indeed, if we mean by " real " what common sense means by it, namely, outward reality, then " virtual " action is more real than the " real " action

typified in sensation. Bergson commits the same error as that previously pointed out, of defining a hypothetical kind of perception, called pure perception, before showing us what conscious perception is, and of seeking to describe the latter in terms of the former. Here he defines " virtual " action before he defines " real " action. He starts with mechanical action, the action of bodies upon one another as the type of ACTION, and proceeds to define all other kinds of action by reference to this assumed type of action. He thus distorts his whole view of the true nature of Action.

In order to find out what Action is, we must start not with " virtual," i.e. with possible or hypothetical actions, or the actions of external bodies, but with action as we experience it in our own minds. Action is mental not physical. If we consider the activity involved in conscious (not " pure ") perception, we see that it is a device for saving physical action. If the body had to move every time that it took up a relation to an object, then mental activity would be reduced to its lower limit, it would be like the action of a material mass ; it would closely approximate to inertia or non-action. This would be the type of " virtual " action. The truth is that the " virtual " actions of Bergson ought more properly to be termed " devirtualised," or depotentiated actions. We are completely misled if we try to describe the nature of Action by reference to " virtual " or merely possible actions. Real action is positive and excludes virtual action. Bergson falls into a fallacy similar to that of supposing that quality and quantity, duration and the external world, could exist side by side. " Virtual " action is not a positive reality. Conscious perception contains all the power and usefulness of a physical movement without the necessity of actually going through that movement. It has all the advantages of physical action without many of its disadvantages. Real action displaces " virtual " action, and is not qualified by any relation to " virtual " action.

If we define real action by reference to " virtual " action, then we are inevitably led to assume that mental action is continuous with virtual action, i.e. that conscious action epitomises a series of physical movements. This we deny for the same reason that we deny that conscious perception or sensation consists of a congeries of pure perceptions. Conscious action suspends physical movement. The relation of conscious perception to physical actions is not that it sums up and concentrates them, but that it completes them in the sense of rounding them off and terminating them.

Bergson assumes that " virtual " action finds its end in a conscious perception, and that reciprocally on the principle that knowledge is relative to action—conscious perception realises itself in virtual actions. For him conscious perception is built upon virtual or physical actions or pure perceptions which can always be found again by analysis " in conscious perception ". On the contrary, we find the tendency of perception to be away from outward action. As perceptive activity becomes finer, more discriminating and richer in contents as it approaches sensation, bodily action diminishes. Real or conscious action does not involve " virtual," i.e. automatic or instinctive action, any more than good wheat involves mildewed flour, or good flour involves a bad loaf. All automatic action is a degradation of perceptive activity. All material movement is but a distorted form of mind-movement. The motion of things borrows its energy from the stream of mental activity.

What, then, is virtual action ? Like pure perception, it is something which exists in theory rather than in fact. It is the faintest shadow of action, a simulated or postulated action, the counterfeit of real activity. And as pure perception was practically equivalent to non-perception, so virtual action is, as near as may be, non-action. This notion of action, action by impact, as of two bodies striking each other, is drawn from the friction of a material world.

The appearance of virtual action arises by the ignoring or negativing of consciousness. We have to distinguish between natural or immediate consciousness, and consciousness barred or turned aside into artificial channels—between integral consciousness and consciousness placed under hypotheses.

The natural sciences make it their business to develop these hypothetical aspects of experience. These virtual actions are not objective. The perceiving subject is through and through implicated in them. The subject does not find them but invents them. They belong not so much to living experience as to the static world of the mathematical physicist. They issue not from the activity but from the inertia of the subject. In this imaginary world of virtual actions the image or bearer of action possesses no original power of movement, but serves merely as the connecting link of movements communicated by the mind. The " rôle " of the images in this schema is to be almost passive under the influences that are brought to bear on it, or under the forces that are applied to it. Virtual actions put forward a false claim to exist or to be real; they may strike us with all the force of a factual reality. But it is the business of Metaphysics to show the hypotheses which occasion them. Take away these hypotheses, and all their matter-of-factness disappears.

The natural sciences are only but varying systems of virtual or merely possible actions. They are never accounts of the actual, and never prepare the way for real conscious activity. It is supposed that the natural sciences may all co-exist at once; but the truth is that the various possibilities opened up by the sciences really exclude each other. This truth, namely, the contradictoriness of the postulates of the sciences, remains generally concealed from us, owing to the fact that the sciences never issue out of the sphere of mere possibility. Other modes of treating natural phenomena might lead to different results, and might not be less valid. How baseless, then, is the notion that

virtual actions are real. Virtual action involves an infinity of possibilities, which, however, are set aside and ignored, except a few which are explored or exploited because of their conductiveness to human " utility," and which form the matter of the natural sciences. But in principle the number of the sciences is infinite, as infinite as the number of the hypotheses that may be adopted and worked. The treatment which the sciences give natural phenomena cannot alter their character, cannot raise them from the sphere of possibility to that of actual concrete fact.

The materialisation of one of these infinite numbers of possibilities does not turn it into a real action. Materialisation is not realisation in the proper metaphysical sense of this last term. Action becomes real, not in being directed towards the physical world, but in coalescing with the unfettered activity of mind. This is true freedom, which does not need to select one of an infinite number of possibilities, but sublates them all. When virtual or hypothetical actions are passed back into the sphere of physical action, by being continued in the cerebral state and acted in the body, their virtuality, i.e. their abstractness, is not lessened, but rather increased. Thereby the physical, the unconscious, is made the goal of consciousness, and consciousness itself is, so far as may be, reduced to a state of virtuality.

Bergson (" Matter and Memory," p. 309) speaks of perception as " being our virtual action and the cerebral state our action already begun ". That is, he makes perception, which hovers on the borders between consciousness and unconsciousness, the preliminary to a cerebral, i.e. a definitely unconscious physical state. Now, whether he makes this cerebral state again the forerunner of a conscious state or of a physical action of the body, we see that he makes the unconscious a link in a conscious process. He assumes that " the body is an instrument of action and of action only," that bodily action goes on independently of and prior to consciousness, that consciousness in the form of sensation or memories supervenes upon it, and links

itself on to the physical process. He assumes that consciousness did not make or constitute the physical process, but has to accept it as given—whereas in fact this whole series of cerebral, nerve, and bodily movements presuppose both sensation and memory.

We cannot understand, therefore, or admit the consistency of the statement of Bergson ("Matter and Memory," p. 233), that the body "can neither beget nor cause an intellectual state"—that, as he writes elsewhere, bodily action "in no degree, in no sense, under no aspect serves to prepare, far less to explain, a representation". He has given expression to the doctrines of Pragmatism, viz. that perception is not disinterested knowledge, but is always directed towards, and moulded by, bodily action. How then can it be said that bodily action "in no sense serves to explain perception"? Furthermore, he asserts that bodily movements (including the movements of the so-called material universe) are *real* and are anterior to perception, and that perception, which indeed is but a selection out of these bodily movements, is continuous with them. He fails to show how perception can be, or is, explicable without bodily action. How then can he maintain that bodily action does not serve to "prepare" a representation?

It is very puzzling and disconcerting to find that Bergson applies the term "real," not only to the actions of the body in forming sensations or feeling affections, but also to the "actions" of the images of the so-called material universe. This is the consequence of the assumption of an objective material world. Having once assumed that objects or images are real, he must perforce attribute to them real action. His line of thought, no doubt, is that the "actions" of external images, though virtual with respect to the perceiving subject, are real in relation to the images themselves. But how can real action be conceived as belonging to these images, without endowing them with some sort of rudimentary consciousness? Real action, on his own showing,

is not mechanical: it must be a self-involved, or self inflected action, an inwardly felt force. He seems sometimes to regard the human body as a kind of monad, and his attribution of real action to external images is only explicable on the assumption that they, too, are monads having an elementary sensation or affectivity analogous to that of the human body. One thing is certain—if this be the character of the objective world, it is not the world of the physicist or chemist, who regards objects as counters, looks at them strictly from the outside, deforces them and deprives them of all " soul," i.e. of all real action.

The Bergsonian concept of virtual action implies that power or virtue is latent in things which sustain it and to which it belongs. According to our view, " virtue " is independent of things; things only mask it and thus hinder the release of power. Bergson starts from the basis of action as an outward movement or automatism: hence he regards the lowest kind of perception as virtual action, i.e. as automatism virtualised, a movement or impulse endued with new potency or raised to a higher power. On the contrary, we find automatism to be unreal; hence it must be nullified, not virtualised. We start from the basis of real action as conscious activity, and hence regard the lowest kind of perception as a devirtualised action or a *barely* virtual action. The objection to the Bergsonian mode of statement is that it assumes that movement or automatism is an activity apart from the percipient, and that even after the advent of the percipient the automatism in some sense still abides. This we find to be impossible.

As Bergson figures it, pure perception is the action of the object, which, being almost unconscious, is contrasted with conscious perception or the action of the subject, which adds so much of its own action to the action of the object as almost to prevent the appearing of the action of the object. Hence, pure perception is called virtual or suppressed action. We now see that this virtual or objective action is just a lower or abstract form of subjective action,

and is not to be set down to the account of any supposed external object. Outer things (not "natural" things, but sense-objects) can neither act themselves nor produce virtual or partial actions in the subject. The whole world of external images which Bergson postulated to begin with, which he declared could not and need not be explained, has its source in the inertia of the human mind. It is the outcome of the tendency of the subject to divide itself, to abstract, to reify abstractions, and to bow down like an idolater before its own inventions.

Consistency is not to be found in Bergson's statements with regard to virtual action. Let us take one important passage ("Matter and Memory," p. 57 f.): "Perception, understood as we understand it, measures our possible action upon things, and thereby, inversely, the possible action of things upon us. The greater the body's power of action (symbolised by a higher degree of complexity in the nervous system), the wider is the field that perception embraces. The distance which separates our body from an object perceived really measures, therefore, the greater or less imminence of a danger, the nearer or more remote fulfilment of a promise. And, consequently, our perception of an object distinct from our body, separated from our body by an interval, never expresses anything but a *virtual* action. But the more the distance decreases between this object and our body (the more, in other words, the danger becomes urgent or the promise immediate), the more does virtual action tend to pass into *real* action. Suppose the distance reduced to zero, that is to say, that the object to be perceived coincides with our body, that is to say again, that our body is the object to be perceived. Then it is no longer virtual action, but real action, that this specialised perception will express: and this is exactly what affection is. Our sensations are, then, to our perceptions that which the real action of our body is to its possible or virtual action."

Now it seems to us that the description here given of a virtual action stands in contradiction to its definition. A virtual action he has previously stated to be a possible action, an unrealised power. But the actual example which he gives of a "virtual" action, namely, the power of the human body, by means of perception, to establish relations or, in a metaphorical sense, to effect contact with distant objects, is really a case of an action virtualised or dematerialised. But a virtual or merely possible action and an action virtualised are not the same. Again he speaks of virtual action as a "nascent" or "dawning" action, but here the action he illustrates is that of a summarised or concentrated action. This perceptive action, which establishes definite relations with objects over a wide distance, denotes evidently far more real power than the so-called "real" action which is realised only through a bare material contact. A danger can be avoided or a promise realised without the juxtaposition of bodies. This would be a genuine case of real action and ought not to be denominated "virtual" action. If, however, the promise fails or the danger ultimates in bodily contact, i.e. injury or death, the result is obviously a minishing or cessation of action. This would be "virtual" action in the Bergsonian sense of that term, and ought not to be called as it is by Bergson "real" action. It ought more correctly to be denominated a quasi-material or devirtualised action. It is a perception externalised, and Bergson has no right to identify it with sensation which is a perception interiorised.

Bergson (*ibid.*, p. 57) exerts himself in order to make us "understand clearly that the necessity of affection follows from the very existence of perception": i.e. he is anxious to deduce our internal sensations from our outward perceptions. It is with this very object that he has given the above illustration. There is here a certain ambiguity in the terms which require to be cleared up. If he desires

to show that our feelings or conscious states must follow from the existence of outward perceptions, then nothing could be more chimerical. It is sufficient to point out that all perceptions of the world already imply conscious states. If, however, he desires to show that a tactile perception must necessarily follow from our visual and auditory perceptions of distant objects, then he has totally failed to prove his point.

It is impossible to derive the lower perceptive faculty like that of touch from the higher perceptive powers, sight and hearing. With very slight movements in focussing my eyes, I can see an object twenty miles away. If I were dependent on touch for my awareness of the object, I should have to traverse twenty miles. Here we have a measure of the superiority of the action of sight over that of touch. Sight and hearing contain all that is in tactile perception, and there is no reason why the limitations of tactile perception should ever be imposed on sight and hearing. Yet this is what Bergson assumes or seems to be anxious to prove.

In the above illustration, Bergson names sight and hearing virtual action, and touch real action. We would rather reverse this nomenclature, and name sight and hearing real action and touch as virtual action. Touch is a virtual or " possible " sight, i.e. a substitute or makeshift for sight. It may be termed an abstract or lower form of sight. But sight itself is not made up of touch perceptions. It would be wrong to say that the perception by sight of an object 20 miles away was the equivalent of, or the summation of, all the tactile perceptions which would be received in traversing the distance to the object. Sight is a superior type of action and displaces touch, and though sight may be contingently analysed into touch perceptions, this is no necessary deduction or evolution from the activity of sight.

The root of Bergson's error is to be found in the plausible assumption insinuated into the second half of his state-

ment: "Perception . . . measures our possible action upon things, and thereby, inversely, the *possible action of things upon us*". How can he attribute "action" to things, in the same sense that he applies it to living minds. If this were true, the type of perception would be the material impact of two material bodies wherein action and reaction were equal and opposite. The above definition can obviously apply only to what is termed pure perception. But it cannot be too much emphasised that such definition is as abstract as a mathematical theorem. And equally unjustifiable is the attribution of pure perception to "things" as well as to living minds. Bergson absurdly tries to explain psychological facts by the help of mechanical analogies. In any perception of which we are aware, even the lowest, action and reaction can never be equal and opposite. The lowest perception transcends mere mechanical action. The truth must hold in perception that if it measures our possible action upon things, then it measures also, not the action of things on us, but their non-action, inability, or passivity in relation to us. Perception measures a relative independence of the action, so-called, of things; a relative release from the tyranny of mechanism.

The mistake of Bergson consists in attributing action to things, and then taking the action of things as the standard by relation to which perception is defined. For him perception has its beginning and its end in material actions. Thus, he speaks of perception as the concentration, or contraction, of numberless pure perceptions of elementary material vibrations. And just as perception springs from physical action, it is itself but a nascent physical action, the preliminary to further extended movements. But action does not belong to things. Movement or vibration is a property not of matter but of ideas or conscious states. There cannot be movement where there is not mind. It is pure anthropomorphism to attribute action to things. It is from the action of things that Bergson derives his standard of perception, following his principle of making

the lower and not the higher the standard. This standard he calls pure perception and attributes it to things as well as to minds. Pure perception is evidently based on the notion of material contact (whereby movement is supposed to be mediated)—and this again is illegitimately confused with the sense of touch. We commonly say that things "touch"; but this again is a piece of naïve animism. Touch is a faculty of mind, not of things, and in no way postulates the existence of matter. In point of fact, material contact is impossible, if, as Bergson himself avers, atoms cannot "touch" one another.

Bergson holds ("Matter and Memory," p. 267), "Real movement is rather the transference of a state than of a thing". If so, the thing as material is abolished, and perception is found to be independent of, and indefinable by relation to, material structures or movements.

The fundamental mistake of Bergson is that he equates action with material action. There is a very real sense in which perception looks, not toward material action, but away from it. Thus, perception not only prepares for material action, but also delivers from the necessity of material action. Perception is then a condensed or simplified action. It is a labour-saving or action-saving device. That tendency of perception which makes it the measure of our possible action on things is impressed on it by the scientific intelligence. Bergson's account of perception suffices for the standpoint of science, but not for the attitude of art to the phenomena of life. Perception is debased by always being oriented towards material action.

According to Bergson, the office of perception is to prepare the way for and to sketch out movement. But the truth is that the higher or more concrete the perception is, the less necessary movement becomes. Perception abbreviates or suspends material action. It measures, not the extent of the power of material action of the living being upon things, but rather a relative deliverance from the necessities of mere material action. If action be identified

with material action, then perception is not a virtual action, but an inhibited, stopped, or checked action. It is a rounded off or terminated action, not an incipient action, as Bergson avers. It is the annihilation of action, not its birth. Perception coincides with blocked or retarded material action. (Similarly, as percept makes outward action unnecessary, so the concept dispenses with the percept.)

Perception cannot be defined in terms of material action, but rather action must be defined in terms of perception. Action may be described as a coarsened, degraded, or impoverished perception. Action is perception attenuating and dissolving itself, losing richness and variety.

This stoppage of action is not a definition of perception —it only gives the formula for the conditions under which perception arises. Perception does not need to be completed by action. It obviates action; it is an action-substitute. This cuts at the root of the Bergsonian theory that perception has a necessary reference to action. Perception, instead of sketching out simultaneously an ever larger number of possible actions (" Matter and Memory," p. 305), both refines them and limits their number. Perception is a mental energy which must be distinguished from, and not be conceived after, the analogy of automatic action.

On the advent of the spirit, body and matter assume a gradually lessening importance. In intuition action is not felt as anything separate from the activity of mind.

A virtual action may be called a hypothetical or indeterminate action, and a series of virtual actions is equivalent to what Bergson calls a " Zone of Indetermination ".

Zones of Indetermination.

Bergson's account of perception is that it is a relation that arises between beings of varying zones of indetermina-

tion. The zone of indetermination is the sphere of "freedom" of any being, and denotes the extent of its power. The body with narrower zone of indetermination is thrown in relief on the body of wider zone of indetermination.

On this line of reasoning perception is a one-sided relation representing the power of the object on the subject, not the power of the subject on the object. External perception is a forced acknowledgment of an alien power. In external perception the subject descends and gives up some of its authority. The percipient must momentarily become that aspect of the object which he perceives. His circle of indetermination is narrowed, and approximates to the circle of indetermination of the object. Bergson speaks of a "certain spontaneity of reaction" ("Matter and Memory," p. 29) of the percipient. But, in this relation spontaneity must be denied of the percipient; external perception is a diminishing of the subject by the object. It is a subtraction of life from the subject, and rather marks a relative "independence" on the part of the object.

This perception of the less by the greater is simply a perception of one's own limitation. Here, again, external perception is seen to be subjective. The "object" of perception is not a reality at all. Bergson says that the thing is more than the representation. But this is not true of the material thing or sense-object, and that Bergson means by the "thing" the material thing is shown by the fact that he assumes that the "thing" has a less zone of indetermination than the perceiving subject. If, as he asserts, the thing is more than the representation, would it not follow that it had a wider zone of indetermination than the percipient?

Bergson says ("Matter and Memory," p. 29): "Suppose, on the contrary, that they"—the images—"encounter somewhere a certain spontaneity of reaction; their action is so far diminished, and this diminution of their action is just the representation which we have of them". Rather, the representation is a diminution of the activity of the

percipient, and an enhancement of the action of the image. Bergson says ("Matter and Memory," p. 30): "Our representation of matter is the measure of our possible action upon bodies". The truth is, it is the "measure of the *negative action*" of bodies on us; or to speak more correctly, it is the measure of the constraint that the object perceived places upon the percipient.

The tacit assumption made by Bergson that the perceived image has a less zone of indetermination than the perceiver is correct. But this is a principle which—in view of the fact that our environment includes human society, no less than so-called material nature—has to be accounted for. A material thing abandons none of its reality in being perceived, but, on the contrary, the subject could not perceive the natural object as external unless it had previously abandoned part of its own reality. To view any living being or natural object under conditions of *material* perception is to distort our cognition of it. When we make a thing an object of (external) perception we necessarily deprive it of life.

To make anything perceptible to sense is to misapprehend its nature and relation. It necessitates an endless regress in the search for its causes and connections. It is to suppose that one sensation can be explained by another sensation, or by so-called material causes. We must not seek for a material cause for anything. We must stop assuming material causes, and then we shall find the root of sensations in the psychic states of the individual. We have to penetrate to the hidden impulse that is behind the sensation. This is to unveil the error that envelops the sensation.

The natural sciences which build on perceptions and sensations have therefore no more validity than the tendencies in human nature which originate sense-phenomena. We must carefully keep clear of the error of supposing that these impulses or tendencies represent the free activity of mind.

Let us consider again Bergson's theory of perception. He expressly declares that in the act of perception nothing new, nothing positive, is added to the object, that is to say, the object is negatived. Now, it is impossible that this should be the case without, at the same time, the negativing of the zone of indetermination of the percipient. The same relation which introduces limitation into the object must also introduce limitation into the perceiving mind. The perceiving mind takes away part of the reality of the object, i.e. degrades the object, and thus reduces its own apprehension of reality. Bergson assumes that it is the mechanical relations of the object that are obscured in the act of perception. But this is an unfounded assumption. In truth, the percipient grasps only the mechanical aspect of the object, or, to speak more precisely, mechanises the object in order to grasp it more easily. Bergson asserts that there is a part of the object whose influences pass over or through the percipient without affecting it. This is evidently the free aspect of the object; in other words, the zone of indetermination of the object. Bergson sometimes assumes that the image, which is simply another name for the object, has no zone of indetermination. But this assumption is not only unproven but plainly false. Each living being, each centre of activity, is surrounded by other living beings each with their own zone of indetermination, and it is arbitrary to assume that natural bodies have not also a measure of indetermination.

It is a fallacy to hold that the extent of our zone of indetermination can be measured by the number, variety, and extent of our external perceptions. The reverse is the truth. External perception limits the zone of indetermination. Bergson says (p. 29), " our representation of things would thus arise from the fact that they are thrown back and reflected by our freedom ". The truth is that in external perception our representations arise from the fact that things reflect our lack of freedom, our inertia, our mechanism. Bergson conceives the whole process of per-

ception in one-sided fashion—the determining factor being the mechanical relations of the objects. The mind of the percipient is only a photographic plate which reproduces some of these mechanical relations.

Bergson assumes that the relation of the percipient to the object is not merely passive, but negative. If this be so, it must be, not because of the spontaniety, but of the inertia of the percipient. The result of external perception can only be to bring the percipient nearer in character to the thing perceived. If the object is only mechanically determined, the subject must also, momentarily at least, be mechanically determined, in order to grasp the object. External perception must reduce the zone of indetermination of the percipient—far from enlarging it. The greater the number of *external* objects we perceive, the less is our freedom.

The widening of the zone of freedom leads not to, but away from, external perception. Just as the mechanising of the object goes, *pari passu*, with the mechanising of the percipient, so equally the increasing freedom of the subject must lead to an increasing freedom of the object. The object cannot be brought within the sphere of indetermination (freedom) of the percipient without itself receiving a measure of indetermination (freedom). If the zone of indetermination denote real freedom, and not pure caprice, we must wholly depart from the conception of Bergson that the indetermination of the percipient leads to the obscuration, the truncating of the object. Rather, the zone of indetermination, instead of isolating the object, reveals its manifold relations, not only to the objects like itself, but also to the percipient. Instead of solidifying and mummifying the object, it sets the object in motion. It reveals the life of the object. The activity of the percipient, if it is exclusive of the freedom of other percipients, or of objects, cannot be real freedom. Where activity involves exclusion of other activities, it is bound to lead to inactivity, i.e. mechanism. Real freedom of the percipient must lead

to the inclusion, not the exclusion, of the freedom of other percipients and of objects in general.

Where the action of the percipient is indetermined, in the sense of being capricious and indeterminate, then the percipient must, since it has no law of its own, follow the law of the object; it becomes an object among other objects. On the other hand, where the zone of indetermination takes the character of freedom, it elevates the object, or rather reveals the full nature of the object. It leads to Intuition, not to external perception.

How can it be, as Bergson says, "that in the necessary poverty of our conscious perception, there is something positive that foretells spirit"? How can ignorance as to objects lead to the knowledge of spirit? Our answer is: External perception foretells, not spirit but the extinction of spirit. In order to reach Spirit we must reject as inadequate, perception. In so doing, we do not renounce real knowledge, but rather remove ignorance. If we can legitimately speak of the necessary poverty of our perceptions, then we are led to the remarkable result that the further we develop our perceptions, the more ignorant we become of the world of objects. This would logically lead to the result that the world of things was only in part knowable, that there was an inherent infirmity of Spirit preventing the apprehension of objects; that objects could not be known through and through, and that we could only reach true knowledge, if such was attainable, apart from objects. This point of view is correct in so far as it signalises the disabilities of perception, but erroneous in so far as it gives warrant to agnosticism, or dualism. There are not two worlds. What is called the world of objects is only Spirit distorted through the medium of perception. There may be necessary poverty in perception, but then, perception is not necessary to the human mind. On the contrary, it is a contingent mode of apprehending.

It is quite evident that for Bergson indetermination

means caprice and not freedom, and it is this notion of indetermination that we desire to criticise. Bergson asserts that our notion of inertia is derived from our notion of movement, and our notion of determinism (= necessity) from our notion of free activity. But it is to be noted that this derivation only comes about not directly, but by way of analysis. Inspection of, or reflection on, our own activity, or the activity of other beings leads to the notion of determinism. But assuredly no experience of free activity would of itself (apart from intellectual analysis) lead either to the notion or experience of determinism. But if it be granted for the sake of argument that determinism, equivalent to mechanism, is derived from freedom, it is self-contradictory on the part of Bergson to define freedom by relation to mechanism, one of its own derivatives. We cannot define freedom in relation to mechanism. It is the fault of the Bergsonian notion of "Zones of Indetermination" that here freedom is conceived as simply the negation of mechanism. In point of fact, these zones of indetermination turn out to be simply other forms of mechanism. All mechanism necessarily involves conflict. The notion that mechanism is or could be universal is ridiculous. Mechanism involves dualism. For what is the basis of mechanism but the notion that one thing can be outside another? More properly speaking, mechanism involves pluralism. The negative of any mechanism is always another mechanism. Thus, the notions of "spheres of mechanism" and of "Zones of Indetermination" imply each other. We can get rid of mechanism, not by the use of another mechanism, but only by suspending it altogether.

Zones of indetermination are spheres of choice. To possess a sphere of choice does not necessarily take us out of the sphere of mechanism. This sphere of choice implies the liberty of choosing one out of two or three or any number of courses that are left open. But by what principle is the individual to choose? We are thrown for an

answer to this important question back on the struggling desires of the individual. "The sphere of choice" corresponds, then, not to a unified individual, but to the formless, characterless individual. The greater the number of choices open the more featureless the personality. An enlarging zone of indetermination is a sign, not of more, but of less freedom. True development means the diminution of the zone of indetermination. The notion of a zone of indetermination implies that there is an accidental relation of the individual to his desires, and of the desires to each other. It implies external multiplicity, pluralism. Is not this the very principle of mechanism? Mechanism and indetermination are relative to each other.

We have noted the assumption that Bergson makes that the world of objects or of inorganic forms is the sphere of mechanism regulated by unbreakable laws, and we have pointed out the fallacy of identifying nature with what is merely an intellectual apprehension of it. We have now to point out another fallacy. Bergson constantly assumes that this mechanism is not only the nature of the Real, but is a unity. In point of fact, mechanism always means pluralism, irreconcilable conflict, caprice, indetermination. It means inertia; but just for that very reason it is unstable. It is itself begotten in subjective desires of the individual fashioning things suitable to his needs.

Mechanism does not follow the nature of things themselves. As the product of caprice, it is no transcript of reality. Nay, the more we approach the Real, the more mechanism must be abolished. This is the natural result of an intuitional Philosophy. Mechanism implies arbitrariness in the human mind, and assumes arbitrariness in the relation of things to each other. Mechanism is a form of disorder, despite the fact that the natural sciences make it their business to cultivate it.

Freedom and Contingency.

Most philosophers have regarded—at least it has been a common mode of philosophising to regard—matter as the sphere of contingency and mind or spirit as the sphere of determination. Bergson, curiously enough, but quite consistently with his general methods, regards matter as the sphere of necessity or determination, and spirit as the sphere of contingency. This very variation in the terminology ought to warn us, both of the ambiguity of the terms used, and of the relativity of the terms to each other. On account of this very ambiguity and relativity, philosophers who use different terms may be in real agreement. What the one means by necessity may be what the other means by contingency. Thus, what Plato called ANAGKE "necessity" is what a modern Platonist of idealistic tendencies would call contingency.

Bergson starts, not as Hume and Kant with a chaos of sensations as the given which has to be fitted into the categories of the understanding, but with space or matter, as already a system of necessity. By regarding mind as superposed on or altering this given necessity, suspending it or bending it to its own nature, he is compelled to regard mind as contingent to matter or space. The *phenomenal* chaos or contingency which Kant had regarded as somehow outside mind is now considered by Bergson to express the nature of mind itself; and all these laws of the mind by which, supposedly, nature was formed and, as it were, interiorised in mind, are now by Bergson turned over to the sphere of necessity, that is, of matter. Spirit manifests itself, not in law as Kant held, but outside law. Bergson holds that law can only be at the expense of spirit, not through spirit. Thus, Bergson does not derive nature from spirit, but (avoiding the materialism which derives spirit from matter) considers consciousness as supervening upon nature, in the form of zones of indetermination seated in

human organisms. The process by which this zone of indetermination widens is pictured in semi-materialistic fashion as an evolution from below upwards. At first spirit has to insinuate itself within matter, to adopt its behaviour, to become almost matter in order to bring over to its side, and thus secure a certain hold over matter. It gradually pushes back its necessity and secures a certain amount of independence. The brain is thus organised to make possible a greater number of ways of action. The brain enables the mind to negate material necessity. It is not so much the instrument of action on matter as a dam to prevent the encroachment of matter upon mind.

The position of spirit in relation to matter is that of a zone of indetermination surrounded by a zone of determination. It is at once apparent that the characteristics of these zones only arise by relation to each other. Each borrows the other's attributes. The division between them is arbitrary, and its outlines are constantly shifting. Thus there are phases of spirit that are constantly being materialised; and, again, if the brain be conceived as a dam against the force of material action, it must be in some sense spiritual, not mere matter. We must abolish this factitious dualism and start from the point of view of unity; that is, of mind. We must start with mind as a zone of Independence, not of indetermination. The word "indetermination" as used by Bergson is ambiguous. It might denote either something negative, unconstrained and accidental, or something positive, active and independent. These two shades of meaning are fused in the notion of indetermination, and ought to be clearly distinguished. Bergson, though he insists that spirit is independent of matter, and labours to prove it, never succeeds in revealing spirit as independent. Spirit is defined negatively as that which is non-determined by matter. At the same time, this matter is always there and does, in fact, always condition spirit. Hence

spirit is really determined to some extent by matter. It has only a relative independence, i.e. indetermination according to the Bergsonian terminology. But spirit is not spirit unless it abolishes the being conditioned by, or being contingent on, matter. To call spirit the sphere of indetermination is to define it by its accidents, not according to its own nature. The concept that sublates the dualism of spirit and matter is Freedom, which transcends both *determination* and contingency. There is an Independence which is not relative to necessity. It is a complete mistake to count matter the sphere of determination, and spirit the sphere of indetermination. Matter apart from mind has only the appearance of reality. What reality it has comes from mind. It is therefore, relatively to mind, the sphere of contingency or indetermination. In fact, a " sphere or zone of indetermination " is a contradiction in terms, because any zone or sphere implies something determinate, and indetermination, strictly so termed, cannot be enclosed in zones or spheres. What is really meant by the zone of indetermination is a zone of greater determination which reduces the zone of less determination to contingency.

Matter, not spirit, is the indeterminate. We must be thorough-going in our refusal to admit contingency. As they are now postulated, the laws of mathematics, physics and chemistry are in accidental relations to each other. But the mind can never be satisfied with such a conclusion. The higher laws must abolish the lower. As we advance from one point of view, we are apt to fail to see that their previous point of view cannot remain unaltered. Thus, Bergson assumes that when the zones of indetermination supervene on the necessity of matter, matter remains practically unqualified by its new relation. This surd or irrational element (matter) remains, in our thinking, to the very end impossible to exorcise. Thus philosophy never accomplishes its task, and is bound down to make a continual regress. The contingency between the various sciences is introduced by Bergson at the very start, and

remains to the very end. And this contingency is elevated to the very corner-stone of his philosophy. This contingency is the counterfeit of Freedom. It is a contingency that is always relative to necessity.

Professor Hans Driesch, in his " History and Theory of Vitalism " (p. 202), writes : " We must study a little more intimately the manner in which *individualising* causality may act in the material universe, or rather with regard to a given finite material system.

" There is no creation either of matter or of the prerequisites of change as such if pure individualising causality is at work : there is only regulative or controlling action in *addition* to energetical becoming—as a special aspect of singular causality. What does this mean ?

" It means, firstly, that the so-called first principle of ' energetics '—the principle of the conservation of energy—is not violated by our individualising agent. This is postulated by the theory, and—we may say this already here—the experiments of Rubner, Atwater and others have shown that it holds empirically. The principle of the conservation of energy holds good for the organism.

" But what about the second principle of Energetics, the ' principle of becoming ' ? This principle, which, like the first, is fundamentally a priori, states that all becoming in space depends on the existence of differences of what is called the ' intensity ' of energy, as, e.g. temperature. May this principle be saved also in spite of the action of individualising causality ? I think it may, if only we suppose that the non-mechanical agent which is the bearer of individualising causality is able to *suspend* such happening as is *possible* on the basis of pre-existing differences of intensity and as *would* occur without the suspension. *Suspending possible change* and *relaxing suspension* would then be the two modes of ' action ' of the bearer of individualising causality which we shall henceforth speak of as entelechy."

Driesch's line of reasoning is similar to that of Bergson.

" Individualising Causality," or Entelechy, is equivalent to Bergson's Zone of Indetermination. Here Driesch explains the mode of action of the organism as a suspension, or avoidance of material movements, or as an alteration of intensities of energies in such a manner as to avoid infringing the law of the conservation of energy supposed to be valid.

We must positively deny that the action of entelechy, or the supervention of a zone of indetermination, can leave the laws of energetics unaffected. Driesch sees the difficulty which Bergson had not thought it incumbent upon him to argue out, but does not reach a solution of it. Entelechy, or individualising causality, the zone of indetermination, can only exist by destroying the sphere of mechanical necessity, or of energetic intensities.

This is what Driesch subsequently himself admits. On page 223, *ibid.*, he writes: " This, then, is the postulate of logic, or its ' ideal ' ". Let us first try to see what this postulate means in detail.

" Strange to say, it destroys the difference between ' mechanism ' and ' Vitalism,' or between singular and unifying causality, which we have established so carefully. For *it abolishes mechanism.* There is no ' singularity ' any more in the face of the general postulate of the one natural order; the universe is an organism, or rather is *the one* organism.

" And the postulate of order destroys something more, something that appears to be of the greatest importance to science; it destroys the concept of the *law of nature.* All so-called ' laws,' i.e. all connections of natural principles with regard to being or becoming which are realised in so many ' cases,' appear, at any rate, as *nothing but features of the behaviour* of that agent which orders ' the nature,' as features of the behaviour of the *natura naturans.* And these features have no guarantee in themselves of being immutable; on the contrary, they must be mutable, *as certainly as nature is a something in evolution.* . . .

"It seems at the first glance as if the abolition of the conception of 'law' by means of our monistic postulate entails a great disadvantage to science—but only so long as we do not appreciate that something else also is to be abolished by monism, a something that may be said to be the greatest enemy of thought: *chance or contingency.*" These final conclusions of Driesch really destroy and make unnecessary his previous theories. The monism which he now expresses subverts his previous dualistic mode of thinking. If the universe is an organism, a totality, not in relation to any environment, how can we admit the hypothesis of "*given, preformed, material conditions* that the action of entelechy depends" on?

If individualising causality can suspend the laws of energetics it has, in principle, abolished the sphere in which these laws were supposed to operate. We cannot stop at the notion of the totality of nature as an organism in which varying intensities of energy induce change. This is only a mediating conception, or half-way house, to the solution of the metaphysical problem. The dualism between nature and spirit must be abolished, and nature drawn within the sphere of spirit.

The difference between Bergson and Driesch is, that Bergson makes spirit to be conditioned by matter; whereas Driesch makes it to be conditioned by energy. There is no dualism of spirit and matter, or "energy," to use Driesch's term. To accept spirit as being conditioned by matter, or systems of energy, must ultimately lead to the self-contradictory notion of a creation of matter. Creation of matter abolishes the notion of matter as a system of necessity (a point which Driesch clearly perceives).

The fact that any process is non-determined in relation to matter does not prove its non-determination in relation to spirit. To raise the question whether reality is determined or indetermined is to mystify oneself with abstractions. God is the Principle of Order. He is Law. In that sense He is determined. At the same time He is

Single, Unique, the One without a second. In that sense He is indetermined.

The assumption of the empiricist is that reality is in itself the sphere of mechanism, and that we have to rid ourselves of the confusion and contingency of our own senses in order to allow the mechanical laws of nature to impress themselves on our minds. The assumption of the idealist is that the world of things or objects is the sphere of contingency, and that the mind has to impose its own laws on nature, or, as it is otherwise put, the manifold of sense. "The Empiricist" sphere of mechanism and the "Idealist" sphere of contingency amount to the same thing. The empiricist supposes that, when his mind is a pure mirror reflecting the mechanical laws of nature, it is then free from contingency. This is delusion. He has presupposed that the mind is contingent, and holds of itself nothing but subjective data of sense. When, therefore, the laws of nature are transferred into his mind, this new acquisition is no less accidental and arbitrary than all the other possessions of the mind. Again, when the idealist imposes laws on the manifold of sense, he supposes that thereby he secures objectivity, or at least validity, for the material sciences. So Kant thought he had given a secure basis to the sciences. Nothing could be further from the truth. A chain is no stronger than its weakest link. If the data of mental laws are subjective or phenomenal, then all such so-called knowledge remains subjective and phenomenal. The idealist supposes that he raises the data of sense from contingency to determination, but, in point of fact, he only mechanises the freedom of the mind.

Bergson takes as a salient instance of contingency or freedom the feeling of effort in realising a purpose. But here he does not reach, much less prove, genuine freedom. An effort to realise a sense-pleasure, or to avoid a physical pain, though it displays intense striving and much reflection, is not free. The effort shows merely the appearance of contingency. There may be many diverse ways of

realising the end in view. But none the less, this contingency is overshadowed by the mechanism in the predominant motive. This motive sets bounds to the contingency. The contingency of the effort is thoroughly limited by materialistic and mechanical tendencies in human nature, just as the contingency or so-called freedom of abstract hypothesis is limited by the mechanical laws which result from it. There is mechanism, not only in the uprisal of the motive which governs the effort, but also in the means taken to realise the end. To realise the effort is to materialise it, which means subjection to so-called material laws. In such an effort there can be no real freedom. Freedom can be realised by suspending material effort. It is intuition which reverses the continual striving to materialise, and introduces real freedom. Psychology cannot find freedom unless it renounces its dualistic postulates, which, if it did, it would destroy itself. It is totally false to regard contingency as the mark of freedom. Contingency is not spontaneity, but disguised mechanism.

We may justly apply this criticism to the modern pluralistic doctrine of the contingency in the evolution of the world. Materialistic evolution boldly asserted that the lower produced the higher. Pluralism sees that the higher cannot be explained by the lower, and avers that the higher is, to a certain degree, independent of the lower. It says that the presence of the lower makes possible the coming into being of the higher, or leaves room for the higher. Grass came into existence, not because of the animals; but when the grass grew certain forms of animal life were possible, and came into being. The forests did not exist for the sake of the apes (quodrumana), the arboreal ancestors of the genus homo; but when the forests grew ape life became possible, and therefore came into being. Thus, the higher is still contingent in relation to the lower. But this does not alter the materialistic assumption. The course of evolution is said not to be materially or necessarily determined, but to be a series of contingencies each made

possible by the preceding. Does this conception of the world allow for freedom, and set aside mechanical determination? It does not. The world of the pluralist is the old mechanistic material world baptised with a new name.

The pluralist may show that contingency reaches down to the lowest amœba, nay, even to the electrons and ions of the physical world. He can show that change is continually going on in the chemical elements, and that nothing can be regarded as fixed. But, on the other hand, it can be shown that mechanism pervades the whole physical world as conceived by the natural scientist, and reaches to the very depths of soul life in the unconscious.

Freedom is totally diverse from contingency or non-determination. It does away with contingency, even more emphatically than with mechanism. It shows in relation to contingency a "determination" of which mechanism is the counterfeit, and in relation to mechanism an independence of which contingency is the counterfeit. Freedom is an activity which suspends human choice resulting in material action. Freedom is activity as opposed to mechanical action. It is law as opposed to human choice.

CHAPTER VI.

MEMORY AND PERCEPTION.

The Theory of Memory—The Theory of Acquired Perceptions—Concrete Experience not made up of Abstractions—Memory-Images, not Matter, the Source of Perception—Habit Memory contrasted with Pure Memory—The Concrete Concept—The Relation of Memory to Action—The Unconscious—Past and Present—The Law of our Psychic Life—"Spontaneous" Recollection.

The Theory of Memory.

Bergson, pursuing the method which we have found to be characteristic of him, of splitting a concrete fact into two abstractions, dissociates ordinary experience into two pure elements, perception and memory. In actual life they are never found pure; it is their combination in various proportions that constitutes experience. Hitherto we have been talking, according to Bergson, not of ordinary perception, which is always impregnated with memory-images, —but of pure perception, which is definable as a perception from which all memory, so far as that is possible, has been eliminated. We have already shown that this definition of pure perception is enough to put the very notion of it out of court. For how can we even begin to reflect on pure perception, without memory? Let us now consider this second ingredient in conscious perception, viz. pure memory.

Bergson writes ("Matter and Memory," p. 72): "The proper office of psychologists would be to dissociate" per-

ception from recollection, " to give back to each its natural purity ; in this way many difficulties raised by psychology, and perhaps also by metaphysics, might be lessened ". Here Bergson, after levelling a false charge against the psychologists, proceeds to adopt their methods of working, hoping thereby to arrive at philosophical results. The psychologists have not, as Bergson avers, neglected to invent and study these abstractions—perception and memory. They have too much insisted on them, and Bergson has only gone the same road as they—nay, further—he has hardened these abstractions into a dualism. He intensifies the initial mistake of the psychologists by turning a psychological method into an organon for the discovery of metaphysical truth. It ought to be the business of metaphysics to abjure the abstractions of psychology, and return to the concrete reality that exists before abstractions arise.

According to Bergson himself, philosophy ought to move in the direction of an enlarged life and experience. Perception and memory are already partially dissociated in our experience. It is not the function of philosophy to dissociate them still further, but to heal the breach between them and to re-integrate perception with memory. If perception be dissociated from memory, then it must be, like space, annulled as an unreality. We cannot stand in perception and memory at one and the same time, any more than we can be conscious of quantity and quality together. Memory is not abstract, relatively to perception, but is independent of it, holding within itself all that is essential in perception without any of its illusions. Perception is in relation to memory a negation ; memory sublates it. We can understand perception only as an abstract memory or a lower kind of memory. The statement of Bergson (" Matter and Memory," p. 75) that " perception is radically distinct from recollection " is a futile and meaningless *ipse dixit*, which has so little foundation that it must be immediately balanced and corrected

by the counter-assertion that " they are always exchanging something of their substance by a process of endosmosis ". Bergson's manner of setting down a statement as absolute, which is really only relative, is highly misleading. The placing of the above two sentences side by side shows how little weight we can venture to attach to some of the extreme assertions of Bergson. At many points of his work (" Matter and Memory ") he implies that perception and memory merge into each other, which makes it all the more difficult to understand the dualism he sets up between them.

What is clear is that experience knows nothing of a perception " radically distinct from recollection ". The " process of endosmosis " is entirely fictitious; we are entrapped by a picturesque metaphor, if we assume that there is anything answering to it in our experience. It is equally clear that this fiction of endosmosis has been made necessary by the gratuitous assumption that " perception was radically distinct from recollection ". The only proper way out of the difficulty is to retract absolutely the false assumption originally made.

When we scrutinise Bergson's " Memory," we are astonished to find that the images which survive in it are derived from perception. This is most absurd in view of the repeated assertion that memory differs in kind from perception. According to Bergson, memory is an abstraction which is just constituted by its not being perception. How, then, can the world of memory be full of perceptive images? According to the principles of Bergson, a pure memory ought to be a memory from which all perception has been eliminated. But, if *actual* memory is continually being moulded towards perceptive action and is constantly enlarging itself by the results of perception, then *pure* memory on this view would be equivalent to pure nothing. This was what, on investigation, pure perception came to. Bergson seems thus to be building up experience out of two empty abstractions.

According to our view, that is pure which tends, not to the abstract, but to the concrete. There can only be one pure point of view. We cannot have perception pure and memory pure at one and the same time. A pure memory is one from which all perceptions have been eliminated, or one with which they have been reintegrated. Memory is, in relation to perception, self-contained and self-sufficient. If memory of itself can frame images, as Bergson seems to admit, why should it be necessary to resort to so-called external images ? In perception there is nothing additional to the world of images already held in memory. The contradiction in Bergson's conception is that, whilst asserting the independence and purity of memory, he also constantly assumes that it is fertilised by perception. The truth is—adopting a phraseology used by Bergson—perception is an impurity which must be eliminated, before pure memory can be realised.

We have already described how, for Bergson, perception was a representation which arose by the obscuration of the images of the real world. We also pointed out the unwarrantable assumption made by Bergson that the real world was material. We sought in vain in matter for the original of this world of representations. We have now the clue to the locus of this world of images. Concrete memory is the " presence " of this world of images, which is broken into " representations " by perception. Memory is the whole of which representation is the obscuration. We also get rid of the agnostic assumption that the " presence " of images does not fall within experience. The question previously foreshadowed, as to whether it was possible to know the world of images in themselves, can now be answered. The real world can be apprehended by withdrawing that distorting interference of the human mind, which manifests itself in the tendency towards material perception.

The Theory of Acquired Perceptions.

Bergson's theory of our ordinary conscious perceptions, or as they may be called in distinction from pure perceptions, acquired perceptions is a re-statement, in more precise terms, of the theory of perception associated with the Scottish or common-sense School. It is the theory of perceptual signs analogous to the various theories of local signs already referred to. According to this, the mind has a fundamental intuition of external reality. But this intuition never remains pure. It acquires meaning from its associations with the various experiences of the subject. The intuition takes on the value of other perceptions which have survived in memory. The intuition of the external is reduced to be a mere sign of those memories that are *superposed* on it, or are interwoven with it. It loses all value for itself and tends to disappear out of consciousness. It becomes a mere sign, at the prompting of which suggestions arise in the mind. The suggestions only are attended to; the external perceptions themselves are ignored.

The difficulty of definitely pointing out these intuitions of the "real" is thus plausibly accounted for, and the defenders of this theory suppose themselves thereby absolved from the duty of actually pointing them out. Even when it is argued that the *analysis* of our ordinary or acquired perceptions *reveals* to us nothing but memories, it is still held that there is a fundamental element in ordinary perception which refers to the external, and that thus there is a radical distinction between perception and memory.

This theory reminds us of what the Hindu philosophers called the argument of the skull. A dead man's head can give no evidence. The appeal to the semi-conscious or unconscious is, practically as well as philosophically, valueless. In so far as these "intuitions" appear in

consciousness, they are in no sense different from the other images that people the memory. Furthermore, these intuitions appear only subsequent to, not precedent to, ordinary acts of perception. They cannot act as signs to call forth recollections, seeing that they follow recollections. Before the perception can be recognised as a sign or act as a sign of anything, we must know the reality for which it stands. Before I can know that a photograph is a symbol of a particular person, I must know that person. The photograph by itself will never serve as a reminder of a person I have not known. But if I know any person, I can identify him with any number of varying photographs of him that may be presented to me. The perception is a sign, not of anything external, but of an inward reality.

Memory is prior to perception. Memory does not need a perception to realise itself, but on the contrary a perception needs a memory in order that it may have any significance at all. We must reverse the usual procedure which assumes that the perception is primary and that the suggestions of memory are built upon it. Bergson assumes that these intuitions of the external world are immediate. In truth they are the result of reflective analysis—not direct experience but a manipulation of experience. It is a total mistake to suppose that our knowledge of the real is mediated for us by a complicated series of obscure perceptions. The mind grasps the total object or situation as a unity, without the necessity of so-called external perception. Matter, so far from explaining perception, explains rather the absence of perception.

Psychology, like the natural sciences, starts from dualism, and is therefore necessitated to have a dualistic theory of perception. Philosophy takes a wrong turn, when it takes over without criticism these dualistic views and makes them ultimate. The perceptual world arises through the disintegration of experience, and just for that very reason cannot become the basis on which experience is built. Reality cannot be symbolised or expressed in signs. But

when experience is broken up, then each fragment of it carries with it intimations of those parts of experience from which it has been torn. So one part may be said to be, provisionally, a sign of another part. But reality or meaning has no positive relations to those signs. We cannot reach concrete meaning otherwise than by undoing outward signs or by a process of desymbolisation.

The truth always sublates the sign or symbol and exists independently of it. The very fact averred that in acquired perception, the "intuition of the real" drops out of consciousness, is the proof of the contention that the outward sign *must* disappear before any meaning or manifestation of reality can arise. So far from the outward signs being necessary for an acquired perception, the perception cannot arise until the outward signs are supplanted.

The difficulty of understanding the relation of perception to the perceived object is one of these artificial problems that have been invented by a false and faulty metaphysics dominated by the physical sciences. The assumption of a dualism necessarily led to the seeking in perception of some mental sign of an outward reality. The mistake consists in abstracting the object from the subject and then hypostatising each of them. Perceived object cannot be separated from perception. It is natural science that encourages this abstraction, and it is the business of metaphysics to correct this error and to fuse the object with the perception, or rather to bring them back to a unity. When we regard object and percept as both mental, the difficulty which the theory of perceptual signs was invented to solve disappears. The theory of perceptual signs was invented in the interests of the science of psychology, and is a witness of the fact that psychology cannot make its dualistic point of view self-consistent. Just because the two are posited as disparate to begin with, the psychologist ought not to look within the mind for a correlate or sign of the external image. The difficulty can only be solved by the total surrender of the psychologico-dualistic point of view.

Instead of the object or sign evoking an acquired perception, it is the acquired perception which under analysis dissolves into signs and objects. There is fallacy in assuming that the elements which a disintegrating analysis finds in our actual perceptions really belong to the integral perception before it undergoes analysis. To search for perceptual " signs " is to degrade the perception to an object. Metaphysics searches not for signs, but for reality itself. The great mistake is in supposing that meaning or reality is dependent on the sign, and cannot be dissociated from it. Along this way lies all literalism, superstition and fetich-worship. There is a faculty of integral experience which keeps the object within the mind and refuses to let it be materialised.

Signs or external symbols are never of reality, i.e. never parts or aspects of it; they are always substitutes for it, and therefore distortions of it. They are analogous to the dream-pictures—disclosed by psycho-analysis—which we subconsciously invent to hide our real thoughts.

They obscure the truth. Materialisation and symbolisation are one and the same thing, and are both the result of abstraction.

Concrete Experience not made up of Abstractions.

Bergson commits the fallacy of supposing that a concrete fact can be got by compounding or " condensing " abstractions, when he writes (" Matter and Memory," p. 76): " The qualitative heterogeneity of our successive perceptions of the universe results from the fact that each, in itself, extends over a certain depth of duration, and that memory condenses in each an enormous multiplicity of vibrations which appear to us all at once, although they are successive. If we were only to divide, ideally, this undivided depth of time, to distinguish in it the necessary multiplicity of moments, in a word to eliminate all memory,

we should pass thereby from perception to matter, from the subject to the object. Then matter, becoming more and more homogeneous as our extended sensations spread themselves over a greater number of moments, would tend more and more towards that system of homogeneous vibrations of which realism tells us, although it would never coincide entirely with them."

We grant nay even insist that, as we pass from perception to matter, we approach nearer and nearer to homogeneity. But, if so, what follows? This "enormous multiplicity of vibrations" of which Bergson speaks is not a manifold of diverse elements, but a homogeneity; it is not a qualitative but a merely numerical multiplicity. How can we build up perception out of abstract elements like these vibrations? Bergson appears to think that the "enormous" number of them can make up for their lack of quality. He misapprehends wholly the nature of this movement from perception to matter. He assumes that in perception we begin with a state "which appears to us all at once," and that as we approach matter, it divides into elements that are "successive". Is not this in positive contradiction of his other statement that in moving towards matter, we move towards homogeneity? The memory has not for function to eliminate succession, and to make things appear to us all at once. On the contrary, in perception we begin with succession, and it is only as we lose memory that things "appear to us all at once," i.e. we reach instantaneity or homogeneity, *alias* matter. Bergson reasons as if in going from perception to matter we moved from simultaneity to succession, whereas in fact, we really move from succession to simultaneity. Bergson here confounds the abstract process of logical analysis with concrete duration, or temporal succession.

We note here also the blunder of Bergson in saying, in the second sentence of the above-made quotation, that in this process of abstraction—the elimination of all memory —we "distinguish the necessary multiplicity of moments".

How can we " distinguish " or find " variety," whilst at the same time eliminating all memory ? This process does not allow of the emergence of distinctions ; it involves ceasing to distinguish. It leads ultimately, not to a " necessary multiplicity of moments," but to a single contingent moment, and finally to nonentity.

We cannot understand the assumption that Bergson continually makes, that matter, so-called outward reality, is characterised by a multitude of rapid vibrations. On the contrary, matter is to be characterised as extremely slow, as approaching the limit of motionlessness in death. Bergson writes (" Matter and Memory," p. 75) : " Pure perception, in fact, however rapid we suppose it to be, occupies a certain depth of duration, etc." We should rather expect him to say that pure perception, however *slow* we may suppose it to be, " occupies a certain depth of duration ". He implies that at the extreme limit of rapidity, matter would fall outside duration altogether. But surely it is only at the extreme limit of slowness that duration would cease. Of course, rapidity and slowness are relative terms. If rapidity be taken to mean the incessant mechanical repetition of identical vibrations, then it ought to be pointed out that this kind of rapidity is really a form of lethargy. These recurring flashes of vibrations may be called " rapid " in comparison with absolute motionlessness, but may be very " slow " in comparison with any form of psychic activity. The difference between these rapid vibrations and the stillness of death is infinitesimal. The greatest velocity of material bodies is but a poor emblem of the quickness of the mind.

These material vibrations are not actual events of the natural world ; they are, as for instance wireless vibrations, the result of the manipulations of human minds. They are through and through impregnated with intellectual analysis ; they are not the outcome of " disinterested knowledge " ; they are not transcripts of the real, but modifications of experience made to conform to human

requirements. They are not properties of the real, but functions of an arbitrarily-given stage of human culture.

Vibrations in actual concrete life, such as those of light, sound and wireless telegraphy, are qualitative, and express, or attempt to express, a definite system of meaning. To tear these vibrations out of their context; to make them homogeneous is not to become more objective, but on the contrary more subjective. It is delusion to suppose that by refining these abstractions we could bridge the gulf between consciousness and the external world.

Le Roy, in his "A New Philosophy: Henri Bergson," page 35, remarks: "A red light continuing one second embodies such a large number of elementary pulsations that it would take 25,000 years of our time to see its distinct passage". It is quite a mistake to set up as an ideal a consciousness which could distinguish and count within one second the millions of vibrations of red light. Red is an abstract term covering a great many varieties of colour. What is important is to distinguish these differences of hue, and at the same time to synthetise them, i.e. to range them in order. This would be a real enrichment of consciousness, an ideal to be aimed at. If, however, we merely counted *numerically* the separate non-qualitative vibrations of red light, this could only be at the cost of doing violence to consciousness, and reducing it to a rôle of the passive and mechanical repetition of a single act.

As an instance of the misapprehensions that exist on this topic, we may quote Ralph Shirley's "Prophecies and Omens of the Great War," page 4: "Man with his present sense of sight can only appreciate seven vibrations in a second, and with his present sense of hearing can only appreciate sixteen vibrations in the same period. There are insects that vibrate their wings several thousand times in a second, and we have reason to believe that they are cognisant of each vibration. Thus the measure of time is entirely dependent on the unit of perception of its percipient. And an insect may experience as many sensations and events

in the life of a day as a man may do in the Psalmist's ' three score and ten '. In other words, the insect's life may be as long to it, though in reality lasting only one of our days, as is that of the human being who has fulfilled the allotted span of seventy years. It is this fact that explains how it is that people have frequently dreamt the experiences of weeks, and even of years, in a few minutes by the clock. The consciousness of the transcendental self has for its perceptions a different and far more rapid rate of vibration than the normal man of waking life, and in certain dream conditions akin to trance, we have reason to believe that this rate of vibration can be indefinitely accelerated."

The fallacy here consists in spatialising time. It is supposed that you can reduce the experiences of insects and men to some common denominator—a certain mathematical unit of time—and then abstracting from all the contents of these varieties of experience, compare them numerically. Thus, by pulverising sufficiently the experiences of an insect, it can easily be made out that it contains as many mathematical units as a man's, and thus by neglecting all quality of life, it can be plausibly shown that an insect's life is as long as a man's. Speculations of this sort are useless and misleading. The beating of an insect's wings is relatively a mechanical process ; and the consciousness corresponding to it would also be mechanical. It is misleading to write as if such a consciousness could be equal in richness to the human. We ought to view life from the point of view, not of a bare mathematical multiplicity, but of an integrated, i.e. a metaphysical unity. The life of the insect seems to be a thoroughly monotonous one, each moment being little better than a repetition of the preceding one, that is to say, judged from a metaphysical point of view, it is lacking both in unity and in concrete manifoldness. It is totally inadequate to measure the worth of experience by mathematical units, or by reference to the length or shortness of bodily existence. Even if the insect did reach the Psalmist's " three score and ten,"

an hour's experience of a hero would be richer and, in the pregnant sense of the term, " longer " than the whole life of the insect.

Bergson writes (" Matter and Memory," p. 77) : " If we were only to divide, ideally, this undivided depth of time, to distinguish in it the necessary multiplicity of moments, in a word to eliminate all memory, we should pass thereby from perception to matter, from the subject to the object. Then matter, becoming more and more homogeneous as our extended sensations spread themselves over a greater number of moments, would tend more and more towards that system of homogeneous vibrations of which realism tells us, although it would never coincide entirely with them."

This is an illuminating description of the process whereby we gradually move from perceptive consciousness to material consciousness. But though we can easily see how thus qualitative perceptions become qualityless material vibrations, we do not see how the reverse process from material vibrations to qualitative perceptions can happen in the manner suggested by Bergson in the following passages : " Theoretically, we said, the part played by consciousness in external perception would be to join together, by the continuous thread of memory, instantaneous visions of the real. But, in fact, there is for us nothing that is instantaneous. In all that goes by that name there is already some work of our memory, and consequently of our consciousness, which prolongs into each other, so as to grasp them in one relatively simple intuition, an endless number of moments of an endlessly divisible time " (" Matter and Memory," pp. 75, 76). Further, he says, page 76 : " The qualitative heterogeneity of our successive perceptions of the universe results from the fact that each, in itself, extends over a certain depth of duration, and that memory condenses in each an enormous multiplicity of vibrations which appear to us all at once, although they are successive."

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How can qualitative heterogeneity be built out of quantitative homogeneity? By no amount of condensation can the individual mind accomplish on its own resources this transformation. Sensible qualities cannot belong to matter—if there be such an entity. Matter most of all denies the sensible qualities; it is that to which with least plausibility sensible qualities can be attributed. When perception becomes matter, the sensible qualities have disappeared. Bergson says (p. 75): "Sensible qualities of matter would be known *in themselves*, from within and not from without, could we but disengage them from that particular rhythm of duration which characterises our consciousness." We have to remark: (1) In order to reach the character of matter, we still remain within consciousness. The rhythm of duration of matter, if such there be, is still one of the rhythms of consciousness, though perhaps not that which can be realised by human consciousness; (2) so far is it from being the case that we know better the sensible qualities by coming nearer to matter that it is just when we approach the rhythm of matter that the sensible qualities are at the vanishing point. It is a misnomer to speak of the "sensible qualities" of matter.

The argument on page 77 thus leads to a different result from the statements on page 27 and page 78, viz. that matter contains more than perception. On the contrary, perception, or representation, always contains more than matter.

The so-called material world arises from the pulverising of the work of memory. But it does not follow that the elements into which conscious perception has been broken up, can be used again to reconstruct conscious perception. It does not follow that, because conscious perception can be analysed into vibrations, it is because memory did a previous work in condensing in each perception an "enormous multiplicity of vibrations".

We may illustrate by an example: The principle of life

bears the same relation to the living body that memory does to the elementary vibrations cognised by realistic science. Life does not consist merely in working up heart, lungs, stomach, eyes, etc., into a living being. These organs are rather left behind by the movement of life. So memory does not consist in organising vibrations so as to constitute conscious perception. Cognisance of vibrations only arises because we break up our perceptions on account of certain needs of the percipient. In exactly the same way, we become cognisant of heart, liver, etc. The healthy man is never aware of his body; and if human beings were all healthy it would obviously never be worth while to take cognisance of the separate members. It is through human want, inability or inertia that the principle of life is first sundered into two—spirit and body—and then the latter subdivided into its various organs. In itself true life is superior to this dualism. Similarly, it is through inertia that mind is sundered into perception and conception, and the former again broken up into vibrations, thus constituting the material world. Mind is superior to this dualism.

Bergson shows his constant tendency to set abstractions in opposition to each other. Thus he opposes unity to multiplicity. Unity is attributed to memory-perception, multiplicity to material vibrations. But unity and multiplicity must always go together. A greater unity means a greater multiplicity or manifoldness. Perception is not only more of a unity, but also more of a multiplicity, than any of the modes of matter. The same criticism applies to Bergson's opposition of " condensing " and " dividing " moments of consciousness. Materially, these processes may seem to exclude each other, but, as denominating mental actions, there is nothing to hinder them from combining in the same mental act. In fact the mental processes of " condensation " and " division," so far from being mutually exclusive, support and enrich each other.

Memory-Images, not Matter, the Source of Reception.

It may be pertinently asked: How does the statement that pure perception moulds itself on the outside object reconcile itself with the other Bergsonian view that matter and intellect develop *pari passu*, each adapting itself to the other? The intellect presses the object towards materiality. This practically amounts to saying that "matter" is a methodological device, an intellectual reconstruction.

Matter is an offshoot of the internal world. All perceptive cognition is a form of recognition. Memories are not derived from perceptions, but reversely, perceptions from memories. There is no material basis for memory, but there is a basis in memory for matter.

Whence then come our memories or memory-images in the narrow sense of that term? They are not the repetitions of our former perceptions, but arise by the banalising of our original mental images. They are devirtualised or depotentiated images.

We often—following our habit of figuring mental processes according to physical analogies—speak of imagination as inner perception. It would be more correct to speak of perception as an externalised imagination. There is nothing essential in the perception which was not previously in the memory-image. A thing must be in the memory-image before it can be perceived.

The material world is an abortion produced in the womb of the scientific imagination. What we see in nature is only but a faint and blurred copy of what we have already seen in imagination. The history of early religion suggests this. Matter is the first idol, and the story of a material creation is the first myth. Primitive man overlaid the primeval chaos or abyss with his own thoughts, and conceived every aspect of nature animistically and anthropomorphically. Modern science has in no way altered this

relation of the so-called "external" to the imagination. It develops the primitive myth. External things are only the convenient counters manufactured by science to embody its hypotheses. Imagination plays a great part—as even the scientists themselves have observed—in the development of modern science. It is thence that it draws its postulates and axioms. Science would turn the imagination into its hand-maid and make it subservient to human uses. But it is no part of the function of the imagination to provide scientific hypotheses. The imagination put to this use is corrupted. Imagination is independent of science and of so-called sense-experience. The "pure data" of sensation are a fiction, and the progress of the mind is conditioned, not by the memory of them, but by their obliviscence. We must reject *in toto* the common dualism between the senses and the intellect.

The shape, colour, sound, smell, etc., which we attribute to external objects have origin in mental images. There is nothing material which guides the mind in distributing these qualities among objects. Bergson says that matter has been plundered of its secondary qualities for the benefit of mind, and wishes these to be restored to matter. But there is an inconsistency in thus endowing matter with the secondary qualities, and refusing, as Bergson does, to allow to matter the power of perception and all other faculties of consciousness. To endow matter with colour and sound is, in principle, to endow matter with consciousness. If we proceed on this line, we cannot stop short of some sort of hylozoism. There is no alternative between making consciousness an attribute of matter and "plundering" matter not merely of the secondary qualities but also of the primary qualities.

Memory and perception are indivisible, and it is vain to attempt to separate them and to show in the act of ordinary cognition or recognition what is the contribution of the one and what of the other.

We wholly lose our way if we hope, as Bergson hopes, to

obtain a view of essential memory by abstracting it from perceptions. His pure or essential memory thus becomes qualified by the contrast with perceptions, and is therefore reduced to an abstraction more empty than perception itself. In truth, memory is always more concrete than perception, and independent of it. Perception and memory are not contrasts. When we come to memory, we must leave behind the category of perception.

But memory, though concrete with respect to perception, is itself abstract in relation to imagination. Bergson lets memory and imagination stand side by side as co-ordinate powers of the mind, whereas the second negatives the first. The more the imaginative and reasoning powers are developed, the more the memory, in the narrow sense, can be dispensed with. It marks a relapse from reasoning to memory when, in speaking, we lose the threads of our discourse and have recourse to our manuscript, or strive to call up a particular sense-image of what we have written. A similar failure occurs when, as is frequent in controversy, we substitute for reasoning the narration of past historical facts or of our own personal experiences. Life itself demands the transcending of the memory. The mind of man would be a chaos, the dream of a lunatic, if it kept integrally the experiences of its past. All progress involves the setting aside of memory. Memory, as such, must disappear and be integrated with mind.

Habit-Memory contrasted with Pure Memory.

The procedure of Bergson here is, as usual, abstract and dualistic. He treats memory exactly as he treated time and causality. He finds memory an inharmonious concept and splits it into two, namely motor or habit-memory and pure memory properly so-called, or dream-memory. The first is exemplified in repeating a verse of poetry over and over again until we are able to say it without book.

It involves no memory of the particular steps by which we finally reach the power of saying the piece of poetry by rote. Here the effort is directed to getting the body to perform certain actions, i.e. to act a series of signs. This motor or habit-memory is closely akin to what we have called an acquired perception. The analogies between habit-memory and sense perception are very close. Habit-memory, like the perceptions of science, involves analysis, repetition and projection of memories. It is the process of turning a memory into a perception. Habit-memory is, indeed, the proximate origin of our sense-perceptions. Habit-memory banalises experience and makes it suitable for scientific treatment. Science and habit-memory are closely bound up together. For science depends on habitual experience, and could not develop without habit, i.e. repetition, and seeks to extend the sway of mere habit, i.e. natural law.

Bergson sharply distinguishes this kind of memory from pure memory proper, wherein an image impresses itself on the mind without effort and can be recalled without effort. It is exemplified in the case of a man who, passing a shop front without giving more than a single glance into the window, can afterwards set down the names of fifty or more articles, of which his mind had taken the impression. It is specially exemplified also in our dreams, when images float into our minds of their own accord and when, released from the necessities of physical action, we give way to our immediate impressions. Hence Bergson calls it dream-memory. It is inevitable that Bergson, in his attempt to reach pure memory by this procedure, viz. by sharpening his analysis and by abstracting first, perceptions, and then motor memories, should find in his hands the barest of figments. Pure or dream-memory is exactly on a par with its supposed contrast, pure perception. Indeed, pure memory and pure perception are so similar that they may be said to be the same thing. Bergson arrives at the concept of pure memory in the same way that he arrives at the concept

of pure perception. Just as the one is got by abstracting from all the variety of the so-called external world, so the other is got by abstracting from all the positive contents of consciousness. As this abstraction proceeds, pure memory and pure perception draw nearer and nearer till they meet in pure vacancy. Pure memory might be equally well defined as pure individual consciousness or pure subjectivity, which we have shown was the characteristic of pure perception. Pure memory is, like perception, a mere reverie, a succession of impressions or images; it is mind reduced to the vanishing point. But in order to understand mind, we must take it not in its lowest terms but in its highest terms. Furthermore, just as Bergson assumes that pure perceptions derive from matter, so he uses language which implies that memories originate in another hypothetical entity named the "unconscious". This notion of the "unconscious" will have to be examined later on.

According to Bergson, this dream-memory is the genuine faculty of memory, and motor-memory is dependent on it for the images which it has to realise. But this pure memory is not something more than motor-memory, but something less. Indeed, it is so abstract that it does not deserve the name of memory at all. What is clear is that the habit-memory is not dependent on the pure memory. He himself says that the body recognises objects, i.e. acts out memories before conscious memory arises. Bergson is forced by his dualism and his materialistic evolutionary standpoint to make the pure memory dependent on the motor-memory for actualisation. Pure memory has no other mode of actualisation than this, and hence it is something that "exists in theory but not in fact". It is purely hypothetical. Bergson calls this the spontaneous or originative memory. But, so far from having the marks of spontaneity, it is altogether struck with paralysis. Bergson makes the same error as when he confounded genuine or real causality with the contingency

of conscious states, making causality something relative to the mechanism of external nature. True efficient causality does away with external mechanism. So genuine spontaneity, or the power of forming images, is independent of motor or automatic memory, and is the exact opposite of Bergson's pure memory. It is because Bergson always keeps up the dualistic contrast with automatic memory that he falls into the mistake of confounding spontaneous memory with dream-memory, as he confounded spontaneity with contingency. The one is but the counterfeit of the other. Automatic memory is the impurity that must be taken away that genuine mental images may be realised.

Spontaneous " memory " (misnamed by Bergson " pure " memory), which ought rather to be termed creative imagination, is independent of habit or motor-memory, which is simply a warping of memory to meet the supposed exigencies of practical life. If, as Bergson grants, there is possible memory without perception, then he has granted on principle that there may be spontaneous images without memory images, i.e. banalised or conventional images. This creative mental power is not to be confounded with Bergson's pure or dream-memory, which, instead of being, as Bergson supposes, the furthest away from perception and materiality, is closest to it. Bergson figures it as being beyond our ordinary memories ; in reality, it is the lowest grade of memory.

As pointed out before, the reduction of the dualism of perception and memory involves the denial of the possibility of any increment of our knowledge by way of sense-experience. What we perceive is only a repetition in abbreviated form of what we remember. If sense experience be an obscuration of reality, it is manifest that nothing new can thereby enter into experience. Bergson assumes that memory functions by integrating the data of pure perception into a single conscious perception, thus producing new qualities. So far is this from being the truth that, in order to enlarge experience and to realise new

qualities, we must not press memory into the service of perceptions, either in the way of analysing them or integrating and compounding them, but go back from our ordinary memory to spontaneous memory, which is not properly speaking a memory at all, but a power of producing mental images. We must not set up as a norm the function of motor-memory, which diverts the path of activity toward the outward world, and seeks to materialise images: we must keep strictly on the plane of the creative imagination, which is itself a higher form of activity dispensing with automatic or bodily action. In order to reach new qualities, we ought to reverse the tendency to motor or material memory and to perception. We ought not to explain memory as a colligation of perceptions, but reversely, perception as an isolated or atomic memory, and memory itself as derived by analysis from the creative imagination.

False Recognition.

In his chapter on this subject in "Mind Energy," Bergson gives memory much more independence and power than he gives it in his "Matter and Memory". He undertakes to explain the relation between memory of the present and a certain illusion commonly occurring in ordinary human experience, called "false recognition". The illusion is of the following nature ("Mind Energy," p. 109): "Some one may be attending to what is going on or taking part in a conversation, when suddenly the conviction will come over him that he has already seen what he is now seeing, heard what he is now hearing, uttered the sentence he is uttering,—that he has already been here in this very place in which he now is, in the same circumstances, feeling, perceiving, thinking and willing the same things, and, in fact, that he is living again, down to the minutest details, some moments of his past life".

The theory of Bergson in short is, that it is through a momentary halting or stoppage of conscious process that false recognition occurs; that there is a doubling of our present perception by an instantaneous memory of the same perception.

Memory is not an image of perception, but rises coincidently with it. According to Bergson pure memory is in its real nature *indescribable*, it is only when we symbolise it for the purposes of communication, it is only when we intellectualise memory for the science of psychology, that it is translated into images. He here makes the mistake of regarding memory as vague and confused in contrast to perception, which is clear and definite, and therefore as requiring to be symbolised in order to be communicable. Just because it is not symbolised it is more clear and more easily communicable.

There is no duplicating of perception by memory. It is utilitarianism that makes the division between perception and memory. If memory regained its rights we should have no external perception. We must go further than Bergson, who makes memory contemporaneous with perception, and independent of it. Memory is prior to perception. There is no dualism between the two. Perception falls inside the memory—the momentary present within the past.

The duplication of the present into perception and memory is a consequence of self-scrutiny. All intellectual consciousness involves a doubling of oneself into two, the one self being necessitated, the other being free. Here we get false liberty and illusory necessitarianism, and we see that they are the obverse and reverse of the same state of mind.

Bergson says that memory is the double of perception. Our view is that perception is the abstract double of memory.

We agree with Bergson that our notion that memory is like to, or a faint reflexion of, perception is due to our habits of description. We confound the symbol with the reality. It is only the symbolic translation of memory that is like perception. In "Mind Energy," page 132, he

says: "The pure recollection of a sensation or of a perception is not a degree of the sensation or the perception itself. To suppose it so would be like saying that the word of the hypnotiser, in order to suggest to the hypnotised patient that he has in his mouth sugar or salt, must already itself be a little sugared or salted." We have a utilitarian tendency to imagine or body forth the constituents of our psychic life in terms of perceptions and sensations. But memory cannot be exhausted by or dispersed into perceptions.

Memory must be something more than a copy of external images. It is turned out of its true path when it records perceptual images. Then it is not pure memory, but memory corrupted. *Only*, this corruption does not come from the perceptions into the memory. The perception is just this corrupt isolated memory.

There is no need to make, with Bergson, a dualism between perception and memory. It is because of infirmity that memory doubles itself in perception. This is simply a case of repetition of habit—a principle which applies to our whole memory. False recognition seems to denote the point where memory is most passive, and becomes the mere slave or copy of external perception.

The Concrete Concept.

The "nature" of the scientist is what the world becomes when life and consciousness are abstracted from it. This is an error which can be corrected neither by supposing that matter is animated, or endowed with soul, i.e. by attributing life and consciousness to nature, nor by supposing that natural bodies are the instruments of mind, i.e. by assuming nature to be an appendage of life and consciousness, but by withdrawing the abstraction which leads to the supposition of the existence of the natural world. Nature, commonly defined, both by the usage we have put it to

and by its continual re-shapement and moulding to suit human needs, is just that which is without life and consciousness. The truth is not got by externally joining the two opposites, but by returning to and consistently maintaining the standpoint of the creative imagination, at which the opposition of nature and mind disappears.

Similarly, when we bring back perceptions and sensations to the independent image, they as such disappear. Mental images are to be referred to what may be conveniently called the concrete concept. Concepts, though abstract as compared with intuitions of reality, are concrete in relation to perceptions and memory. The common empiricist view is that the concept is simply a refinement of sensation—a sensation which has been made representative of a congeries of sensations—that perceptions are built up out of sensations, and concepts built up out of perceptions. On the contrary concepts, even the most abstract, are prior to sensations. Sensations and memories only arise by the disintegration of concrete concepts, and concepts cannot be built up out of them again.

The ordinary idealistic view was that the concept, though independent, had for function to co-ordinate perceptions. The error consisted in admitting that there existed perceptions to which concepts had to be applied. Thus concepts were made the hand-maids to perceptions. They were devitalised and materialised. They became symbols for sensations or perceptions—and thus there came to be no practical difference between idealism and empiricism. Concepts lost all independent power. Idealists did not see that concepts ought to be applied to perceptions, not to subsume them under categories, but to take their place and set them aside. When concepts are subordinated to the use of combining perceptions under laws, or when they are made to produce, as they can easily be made to do, sensations and perceptions, they are turned from their proper function.

Hegel was accused of pretending by his dialectic to develop all truth out of pure thought, whilst all the time he was drawing the material of his knowledge from the empirical sciences. The charge was not without foundation. But we cannot solve the difficulty by renouncing pure thought, and contenting ourselves with that which is empirically given. On the contrary, if we are to have a proper use of the concept, we must discard empirical science.

Science uses abstract concepts, but it is the business of metaphysics to keep concepts concrete—to maintain the independence and power of pure concepts. In the recent history of philosophy, the pure or concrete concept has become a tentative idea, a speculative notion moving in the void. It sought for itself in sense-phenomena a verification which it ought not to have needed. Hence the birth and uprise of pragmatism. The disinterested self-contained idea became the utilitarian scientific hypothesis. Metaphysics abandoned its own rôle and became the handmaid of the sciences. It regarded it as its main function to simplify the assumptions of the sciences, to mediate between their divergences and to unify the results of their operations and to fill up the gaps between the various branches of knowledge. But there can be no true science precedent to Metaphysics, and if Metaphysics had fulfilled its calling the various materialistic sciences would never have arisen. Kant when he gave, as he supposed, a rational basis to modern science, was really giving the death-blow to Metaphysics. Metaphysics and the natural sciences are irreconciliable.

The Relation of MEMORY to ACTION.

Following his assumption that the type of action is given in outward bodily movement, Bergson is led to distinguish between pure perception and pure memory, by saying that the one is ideo-motor, the other idea merely.

Thus, memory would be reduced to the purely passive rôle of reverie or dream. But it is impossible for Bergson to maintain this position, and he constantly uses language which implies that memory-images have a force of their own, and only need to borrow the body of a perception in order to materialise themselves. So far is it from being true that the motor element comes from the pure perception, that the opposite is the truth. The memory-image has an existence independent of perception, and does not need to embody itself in a perception. The perception borrows its vivacity and material power from the memory-image. Thereby the power of the memory-image is harnessed to matter.

Bergson claims that he avoids materialism, and offers his rationale of memory as a proof of the independent reality of spirit. But he never reveals memory in any other capacity than as an instrument of material action. It is a material memory which immerses man in the course of nature, and begins and ends in the " unconscious ".

The view that memory needs a perception in order to enable it to " act " follows from the assumption that the capacity of movement resides in matter. Here Bergson is totally inconsistent. He strips matter of the power of thought and also of the faculty of " engendering representations," but leaves it the sensible qualities, colour, sound, etc., plus movement. But if we are to be consistent, we must carry through to the very end the work of recovering from matter what had been illegitimately attributed to it. We must take away from matter the capacity of movement. That matter should be the vehicle of an action is as mysterious and inexplicable as that it should be the " begetter of perceptions ". Matter explains not action but rather the hindrance of action.

We cannot admit that Bergson is consistent, when he writes (" Matter and Memory," p. 179), " pure memory, on the other hand, interests no part of my body ". Spontaneous " memory " is, we grant and even affirm, indepen-

dent of body, but his "pure memory," being abstract, is just for that very reason dependent on the body. If pure memory interests no isolated or single part of the body, it must be because it interests the body as a whole.

Bergson says that pure memory is non-utilitarian. But he never shows us pure memory otherwise than as chained to the body serving practical material needs. Let us refer to the diagram on p. 197 of "Matter and Memory". The cone ABS, which figures the movement of our mental life, is always pointed towards the plane of material utility. Now, if pure memory were independent, and had any contribution to make to pure knowledge, the plane AB representing pure memory would not always face the plane of utility, but would revolve and project an infinite number of lines and points in other directions.

Bergson says that far the greater part of pure memory has to be suppressed on account of the exigencies of practical life. This only confirms our suspicion that pure memory is something which "exists in theory rather than in fact," i.e. that it is a mere hypothesis having nothing corresponding to it in reality—that it is the tasteless and unsatisfying fruit of that speculative tendency which Bergson himself heartily condemns—and so frequently indulges in. When we seek what pure memory is apart from the necessities of physical action, we find an empty void, a total blank.

Bergson falls into the radical vice of materialism in making perception and sensation essentially active, and memory essentially powerless. We pointed out, however, that pure perception was the lowest kind of action. In this respect the two complementary abstractions, pure perception and pure memory, are on the same level. A series of dream-memories, tied by the slightest thread of connection is as nugatory and purposeless as the stream of pure perceptions and the unconscious impulses that move them.

Pure memory and pure perception are the same, and

the concept that covers them both is the notion of the "unconscious".

The attempt to distinguish between perception as ideo-motor, and memory as passive idea must defeat itself. In respect of action, they differ only as less and more. A memory-image may get so loosened from its connections, as to become active on its own account, and so to simulate a perception. In lower minds memory is simply the hand-maid of impulsive action. This is the type of action Bergson has in mind when he writes ("Matter and Memory," p. 185): "Now the past has no longer any interest for us: it has exhausted its possible action, or will only recover an influence by borrowing the vitality of the present perception". In higher planes of experience, however, perception tends to become the hand-maid of memory, i.e. to become integrated with memory. Memory ceases to dissolve into impulsive action, and more and more gains an independence of perception.

The Unconscious.

It is surprising to what an extent the Bergsonian conception of pure memory anticipates and coincides with the latest product of psychological theory—the notion of the unconscious. According to Freud, "the unconscious" is that region of the mind where is impressed every feeling we have had since birth, and where are stored the memories of every incident, no matter how trivial, which we have experienced.

There is a school of modern psychology that defines as the object of its study this world of the unconscious, just as the scientist denominates as the sphere of his study the material world. "The unconscious" is identical with the pure memory of Bergson; for according to him pure memory is always latent, ineffective, unconscious. The past as such, i.e. so far as it has no relation to present action,

is preserved in the form of psychical states below the level of consciousness. There is no more reason, Bergson holds, for denying that there may be psychical states outside of consciousness than for denying that material states exist, though not perceived by the senses.

Now we have already pointed out the fallacy and confusion which arise from the supposition of a matter outside consciousness ; and we must deal in the same way with the supposition of the " unconscious," which is the " matter " of the psychologist. Matter and the unconscious are indeed the same ; and the same argument that destroys the one destroys the other. Bergson says (" Matter and Memory," p. 183) : " What can be a non-perceived material object, an image not imagined, unless it be a kind of unconscious mental state ? " Conversely, the unconscious is conceived by Freud and the Psycho-analysts, as well as by Bergson, as of the same nature as matter. It is treated as if it were subject to mechanical law. The structure of the unconscious is figured according to the automatism of external nature. The bizarrerie and topsy-turveydom, the fortuitous and nonsensical detail, which seem on a first inspection to be the obvious characteristic of the unconscious, is claimed to be on a deeper study explicable according to psychological laws which are on the same footing and of the same validity as natural mechanical laws. Thus, psychical nature is brought into line with physical nature. It is the working of these laws in the unconscious that is supposed to prove that the unconscious is a real entity enjoying a relatively independent existence of its own.

Now the fact that the phenomena of the unconscious can be read according to psychological laws no more proves the real existence of these phenomena than the fact that the phenomena of external nature can be subsumed under natural laws proves the reality of natural phenomena. To bring physical and psychical phenomena under the control of natural laws does not necessarily take away the fortuitous character of these phenomena. Nay rather, this

method of treating them according to natural laws really emphasises their fortuitous character, since it elevates "chance" into "nature," makes of the fortuitous an inevitable fact, a veritable part of the scheme of the universe.

Moreover, these phenomena are conditioned by the hypotheses with which we approach them. The psychologist supposes that he "finds" the phenomena of the unconscious. His belief is that they have an existence prior to his finding them. In truth, he does not find them, he invents them. They are the result of his hypotheses, and as he goes along making every effort to verify his hypotheses he gradually converts his hypotheses into "natural" laws. From this the final step to the hypostatising of the unconscious is easy.

In truth, these phenomena are refractory to the concept of natural law or indeed of any law whatsoever. This is particularly evident in the case of the phenomena of the unconscious, which will not submit to the bonds that are held out to them. The proper method of dealing with these phenomena is not to rationalise them but to derationalise them. The very methods of psycho-analysis, when rightly used, show the unreality of the unconscious. In the case of people affected with obsessions, phobias and hysteria, the contents of the unconscious need only to be touched for their absurdity to be shown up. These phenomena disappear as soon as the rationality attributed to them is taken away. The unconscious is essentially the irrational, the lawless; to attempt to make it the sphere of law is to introduce an insoluble surd into experience. Not only so, the notion of the unconscious is essentially an irrational concept, playing the same part in the sphere of logic that phobias and obsessions play in the sphere of mental hygiene. It denotes a metaphysical disease, a defect of thought. There is no value in the study of the unconscious—which is rather what the mind must study *away from*. It is the office of Metaphysics not merely to dissolve the illusions of the unconscious but to prevent even the appearance of it from arising at all.

The uprise of the idea of the unconscious is a consequence of the discrediting of the notion of matter. The unconscious is the place of refuge of materialism. Of course, in its new form, materialism is disguised or masked, but is not one whit more self-consistent or less dangerous than in its old shape. Physics is brought into line with psychology. It is recognised that material atoms are nothing but perceptions or various aspects of our sensations. At the same time Psychology is brought into line with Physics through the concept of natural law. The quarry out of which both are supposed to dig their material is the unconscious. Unconscious states of mind are simply our old enemy " matter " in a new guise. Perhaps it would be more correct and not less illuminating to compare the unconscious to the Bergsonian notion of space. Bergson projected physical phenomena into space, assumed to be real and objective, and declared that this was necessary for securing order in our experience, against all the evidence to the contrary that physical phenomena were not in fact in space, and did not need the help of space for their orderly arrangement. Is it not clear that the so-called phenomena of the unconscious were first projected into it from the field of consciousness, and then assumed to belong there ? Is it not patent that the unconscious is a nonentity like space and has no content of its own ?

To grant the existence of the unconscious is to go back to chaos and to bring upon us again all the difficulties of materialism. It is to introduce a bastard kind of spiritualism —more properly named spiritism or polytheism—into the life of the individual, whereby his real freedom is fettered. The perplexities of modern spiritism and necromancy, automatic writing and clairvoyance, etc., are all the outcome of the erroneous assumption of the unconscious. Psychology, as the science of the unconscious, no more than the material sciences, gives true knowledge.

The hypothesis of the unconscious is a consequence of dualism. The formation of the subject-object relation

necessarily involves the deprivation of the object of life and consciousness. The object is made a tool, i.e. is materialised. This again involves the materialisation of the subject—a division of the subject into two portions, conscious and unconscious. Following upon this admittance of unconscious states into the subject arises the necessity of endowing the object with a kind of soul or quasi-consciousness. This is the common animistic belief which is not confined merely to the breasts of uncultured savages but still holds powerful sway in the minds of supposedly civilised men. It is the belief in a " conscious body ".

Thus you have, on the one hand, the subject conceived as an unconscious mind, i.e. the subject taking over the quality of the object ; and on the other hand, the object conceived as a conscious body, i.e. the object taking over the quality of the subject. Both concepts are baseless. An unconscious mind is a contradiction in terms. An unconscious psychical state is simply a conceptual limit to which *souls* tend but which they never reach. The unconscious is a pure negation ; it denotes what we are ignorant of or what we merely surmise, not what we really know. If we become absorbed in reflection, we may not see or hear certain things which otherwise we would see or hear ; we may be unaware of certain feelings of which otherwise we would be conscious. Can it be said that these sights, sounds or feelings exist when we are not conscious of them ?

Equally absurd is the hypothesis of a conscious body. This is—after making a dualism of body and soul—to combine the two externally. The two terms soul and body arise by opposition to each other, carry different meanings, and we are not helped in the understanding of them by setting them down side by side. If we have been led by the argument to deny the supposed intuition of matter or consciousness of body, we are equally bound to deny also the hypothesis of a body possessing consciousness

or of a conscious body. A conscious body would be a conscious unconsciousness—a manifest absurdity.

The unconscious is simply a phase of ignorance out of which we emerge. It is not to be hypostatised as a reality. Just as matter explains not movement but hindrance of movement, and brain not mind but the limitation of mind, so the unconscious points not to a region of unexplored treasures and potentialities but to a nest of illusions. So far from it being a hypothesis which is necessary to explain experience, it must be renounced before we can clarify our thought.

We constantly note the tendency in Bergson to make the unconscious or subconscious overshadow in importance the functions of consciousness. Consciousness only appertains to the stages intermediary between the two opposed poles of mental life, namely dream and impulsive action, both of which are relatively unconscious. Thus consciousness is made entirely relative to the unconscious, in which it has its source and in which it has its end.[1]

The assumption of unconscious states of mind is a hypostatising of human ignorance. The argument—to put it shortly—is: Because we are ignorant, therefore some of our psychical states are unconscious. But we ought not to attribute to reality or to objective mind the vices and defects of the human mind. It was natural enough to apply the term "unconscious" to assumed external objects, but it is absurd to transfer this epithet to the processes of subjective experience. The hypothesis of unconscious mental states is the evil legacy left us after the notion that lifeless external objects exist has been demolished. But it ought to be plain that the giving up of the notion of an external reality involves also the surrender of the notion of the unconscious. Just as perceptions are not the data with which the mind begins to build up the

[1] In truth the life of dream (pure memory) and of mere external action (pure perception) are two extremes which disappear at the level of even the lowest form of consciousness.

structure of knowledge, but the last results of a false mode of knowing, cultivated by the natural sciences, so unconscious psychical states are not the inlet to the deepest truths of mental science, but the last results of a wrong handling of experience appertaining to Psychology. They are the last terms of a process of abstraction carried to the limit of human ignorance.

Past and Present.

Bergson makes a sharp abstract distinction between past and present—analogous to the separation of pure memory from pure perception. They differ not merely in degree but in kind. The past, just because it is made abstract, and viewed totally apart from its relation to the present, having only a quasi-existence in the form of unconscious states, is in itself useless, powerless. The past is virtual, i.e. hidden or suppressed, and the present is the reality to which the past is relative. The present alone possesses action and directive power.

This abstract sundering of past from present is alien to concrete experience, and is of no metaphysical value. To impose this abstract conception upon the human mind would be to introduce into it the mental life common to the lower animals, in which the various items of experience are externally related to each other. But, even in the lowest forms of consciousness, much more in the higher it is impossible to sunder past from present. Thus the animal's " present " tends to become a mere repetition of its past, at the same time that its past tends to become a mere series of " presents " having only the slightest connection with one another. But as experience deepens and widens, present and past are integrated : they become one. The present, which is only a momentary past, is drawn into the past, and the past, losing its external relation to the present, ceases to be a past as such. The need of memory of the past is transcended ; for it is only the diver-

ting of attention to momentary impulses and utilitarian ends that makes such memory necessary. The distinction between dream and action, analogous to that between past and present, is equally otiose. The routine action of animals is dream, and the life of dream is simply the quasi-mechanical action of the human mind. It is memory sinking to the animal or infantile stage of experience.

The reason why Bergson maintains that past and present differ in kind is that, as he writes in "Matter and Memory," p. 175, "For then, if the two states differ merely in degree, there should be a given moment at which the sensation changed into a memory". We grant, nay we emphasise, that sensation cannot be changed into a memory. If we begin by taking the abstract standpoint of sensation we cannot reach memory. But this is a difficulty entirely self-created and self-imposed. If we start from the concrete standpoint of the memory, we can easily see how memory could change by depotentiation, into the sensation of the present. Experience constantly testifies that, in unbalanced minds, memories scatter and lose connection with one another, and hence tend to materialise themselves as sensations. Against the Bergsonian assertion that "weak states" of memory cannot change into "strong states" of sensation, we contend that the weakening of the memory directly tends to produce this result, and in the experience of dream the weakening of memory coincides with the upspringing of the illusion that our memory-images are external and are actually perceived and felt as impressions of the senses.

Bergson narrows the range of consciousness to include simply that which makes a strong or vivid impression, and thus tends to regard memory of the past as relatively unconscious, as compared with the sensation of the present. This is totally unwarranted. We have seen that Bergson admits that our perception of an object consists predominantly of memories which have overlaid and almost completely suppressed the pure perception of the real. Why,

then, should memory be regarded as relatively unconscious when the most of our conscious perception is really memory? Does not the pure perception which is overshadowed by the predominant influence of the memory factor more partake of the unconscious? And when we find out what this pure unconscious perception is, what other than a memory does it turn out to be?

In the end Bergson gives up his asserted absolute distinction between memory and perception, and practically comes round to our view that perception is a kind of memory. What else can we make of the following passage of "Matter and Memory," page 194? "In the fraction of a second, which covers the briefest possible perception of light, billions of vibrations have taken place, of which the first is separated from the last by an interval which is enormously divided. Your perception, however instantaneous, consists then in an incalculable multitude of remembered elements; and in truth every perception is already memory. *Practically we perceive only the past* (italics Bergson's), the pure present being the invisible progress of the past gnawing into the future." This is in plain contradiction of his previous theorisings. We have seen that he had declared that the core of our conscious perceptions was pure perception, the intuition of the external. It now turns out that this pure perception is simply "remembered elements". If he says "*practically we perceive only the past,*" does he not suppress pure perception altogether, and surrender the whole theory of pure perception? Again, the view that the present is conscious, the past relatively unconscious is overturned now by the statement that the pure present is "invisible," and therefore, presumably, unconscious. In truth, the pure present, i.e. the momentary present, is not the "invisible progress of the past," but the invisible result of its analysis.

With the vanishing of the theory of pure perception, the notion of pure or abstract memory must also disappear. So long as pure perceptions were held to, then pure memories

had to be mainly suppressed to allow of the material action of the momentary present. It is now seen that pure perception is a form of abstract or pure memory, and that both have to be suppressed in order to realise concrete memory.

The present and the past, so far from differing in kind as well as in degree, are exactly on the same level and are constantly changing places. For Bergson, the present is an instant unrelated to anything else. Such an " instant " is no actual piece of experience ; it is evidently an abstraction. Hence arises the necessity of erecting a complementary abstraction—the past. This past is, however, simply a series of moments, the bare succession of events. A present, impregnated with such a past, could not thereby gain in meaning.

Similarly also the hard and fast distinction between matter and memory—analogous to that between present and past—falls away. Matter, defined in terms of time and not of space, is the present. Material nature is a fragment or torn remnant of human history ; it is the present result of our past non-action ; it is a ceaseless flux. Metaphysics recognises it as a flux, and seeks to make it disappear in non-being. The natural sciences, however, in the form of Astronomy, Geology, Botany and Biology, seek to give being to the flux, by fixing it and setting up a permanent record of it. This is the memory which is relative to matter—the only memory, so far as we can see, that Bergson recognises. But this memory can be preserved only in material form. Where it is not a phase of " the unconscious " it is a form of matter. This memory does not introduce us into the realm of spirit, as Bergson supposes, but rather results in the reproduction of conventional forms of nature, i.e. it intensifies materialism.

Pure science so-called is not absolute disinterested knowledge. It is both utilitarian and speculative. It is utilitarian because its ultimate aim is to equilibrate man with matter, i.e. to harmonise man with his lower

impulses; it is speculative because it is entirely based on hypotheses.

The Law of our Psychic Life.

The position which Bergson holds on this point is that, for the sake of action we habitually ignore our inner experience; we suppress practically the whole of our psychical existence or relegate it to the unconscious. Under the necessities of practical life, we are led to grant real existence to the fleeting present to space and matter, and to deny it to consciousness. The law of action makes obedience to the maxim, "γνωθι σεαυτον" ("Know thyself") impossible. As Bergson himself says in the last phrase with which he winds up the third chapter of "Matter and Memory," "Materiality" (and all action tends, according to Bergson, to materiality) "begets oblivion".

In the opening sentence of the next chapter of "Matter and Memory" Bergson sums up his general conclusion in this way: "The body, always turned towards action, has for its essential function, to limit, with a view to action, the life of the spirit". When we read this statement, the question at once arises: What is the life of the spirit? He has stated what the function of the body is. We naturally enquire next what the function of the mind is. For Bergson has declared that the mind is different from the body and independent of it. We expect to be shown either that there is a way of escape from this utilitarian bias towards practical action, from the perversion of the conscious process to subserve the tendencies of the material life, or else that independent mental functions can exist alongside bodily functions. Bergson seems to grant, in very dubious terms, a certain freedom to the mind when he refers to "the play of fancy and the work of the imagination—so many liberties which the mind takes with nature" ("Matter and Memory," p. 234). But how little worth we can attach to this supposed freedom of the

mind is shown by his next statement: "It is none the less true that the orientation of our consciousness towards action appears to be the fundamental law of our psychical life". Thus, the function of the body turns out to be at the same time the function of the mind, that the psyche or soul has no function outside bodily ends, seeing that fancy and imagination are not so much functions of the mind, as mere by-plays or by-products, a little license granted to mind by nature.

Furthermore, is there not a manifest contradiction between saying that bodily action is a *limitation* of the life of the spirit, and saying that it is the *fundamental* raison d'être of the life of the spirit? We grant, nay we emphasise, that the body cannot admit of the free untrammelled movement of the spirit, but we deny that the body in this "limitation of the life of the spirit" fulfills any real function. We deny that spirit is *in fact* limited by the existence, real or assumed, of the body. The limitation holds of body and of body alone, and not of spirit, which remains unqualified by its supposed bodily determinations or limitations.

The life of the spirit is not bound down to the exigencies of action—and, of course, by "action" is here meant bodily or material "action". Bergson, as already quoted, generally speaks as if it was the actually existent line of action that selected and assimilated the relative and useful memories, rejecting all the others—as if actions were the guiding factor, and memories the passive. This view, which would make man the sport of chance, wholly subservient to his environment, is fallacious. In any given situation there is an infinite number of lines of action open. It is the predominant memory that selects one out of an infinite number of possible actions. Bergson speaks as if the necessities of action excluded all memories except those required for the case in hand. The reverse is true. It is memory that excludes an infinite number of possible actions. The "orientation of our consciousness" is not towards action, but towards the limitation or suspension of actions.

Bergson ("Matter and Memory," p. 232) "considers memory itself as absolutely independent of matter". This is what we contend for; this principle ought to be taken seriously, consistently adhered to, and carried to its logical consequences. How is this reconcilable with the materialism of the statement of the very next page (233) of "Matter and Memory" that the function of the body is to choose the useful memory? If memory is "absolutely independent of matter" this second statement is inadmissible. Here again we note Bergson's habit of enouncing a principle in absolute terms, and then qualifying it by some statement which really makes nonsense of his first. In point of fact, his leading principle is that the body determines memory; this is the only point that is made out by Bergson's reasonings. The other statement, that memory is absolutely independent of matter, is left wholly in doubt. It is something which holds "in theory rather than in fact". It can only be regarded as a mere sop thrown to the idealists.

If memory were independent of matter, it ought to lead to the doctrine of a disembodied memory or of a memory independent of the body. But so far as we can understand the pages of Bergson at this point, memory always seeks embodiment, it is always turned to bodily action; it has no life apart from the body. Spirit never exists apart from this bodily limitation. In point of fact, the part the body plays is to drown memory in the life of mere instinct. The true life of the spirit consists in releasing memory from the enthrottling grip of instinctive impulse, as well as in stopping the dispersion of memory into flaccid reveries and fleeting dreams.

"Spontaneous" Recollection.

Bergson speaks of pure memory not only as a dream-memory but also as spontaneous recollection, i.e. the faculty of recalling the particulars of our past experience,

which have only occurred once and will never recur. The contents of spontaneous recollection would be the details with dates of our past individual experience; and would be, like dream-memory, mainly unconscious—for no one remembers at any given time all the circumstances of his past history. It is non-utilitarian, according to Bergson, and is to be sharply distinguished from utilitarian motor-memory, which consists of a recollection standardised, repeated and fixed in a regularly recurring habit.

It is impossible to attach any metaphysical importance to this sharply-made division between spontaneous recollection and habit-memory. So far as these spontaneous recollections are not unconscious, so far as they manifest themselves at all, they owe their origin to their immediate practical efficiency. They are the reverberations in memory of sense perception. The content of this "spontaneous recollection" is derived from action and habit-memory. It is that which, though not useful for the moment, may become at any time useful. It is nothing in itself, and is wholly relative to the useful, i.e. material action.

If we escape from habitual acting-memory only to relapse into "spontaneous" recollection, we are not advancing in thought—we are going from one state of relative automatism to a more loose, i.e. a more abstract automatism—which approaches nearer the lower limit of contingency. Here again Bergson confuses spontaneity with contingency. His "spontaneous" memories ought more appropriately to be called contingent, i.e. they are automatic recollections in which real originality is reduced to the vanishing point. The true law of mental life requires us to suspend the action not only of habit-memory but also of random recollections.

It is totally wrong to suppose that memory is the container of all that sense has experienced. This is a burden which the true spontaneous memory rejects. As Thoreau significantly said: "A little thought is sexton to all the world". A thinking memory displaces multitudes of sensuous images, and obviates countless material actions. We

must renounce pseudo-memory and return to true memory, in which the thing or event is no longer a sensuous particular, but a concrete image, the product of creative mind.

True memory is not subject to oblivion. Here what we remember does not depend on our arbitrary wills, but is a necessary manifestation of universal mind. Bergson attributes to memory the power of connecting the items of experience, but the principles of memory which he adduces bring about a total dissolution of experience. Memory is made the slave of the momentary present. Bergson, in short, derives memory from the senses. Genuine memory is derivative from thought and imagination.

Memory that is simply the observation and retention of sense-facts is perverted from its proper function. Counterfeit memory accepts the given, the accidental, and names it "the useful". We must not, however, be misled by this phrase, "the useful". It does not really denote anything that is adapted to the mind. It means that the mind sinks to the level of the accidentally given, which is accepted as "the useful". Here the practical or the practicable is the offshoot of the accidental. "The useful" means that a temporary equilibrium or mechanism has been established in experience. The mind thus falls into the way of regarding the habitual as the useful. But no amount of repetition of an action can prove it to be really and permanently useful. This is nothing but the hardening of sense-impressions. The fixing of motor- or habit-memory is an illegitimate attempt, like that made by the natural sciences, to raise the accidental and contingent to the level of law. It is the function of the mind to convert memory and to give it rebirth as the child and servant of the creative imagination. Genuine memory holds only what universal mind verifies; seeks its source of power in the concrete concept. The natural sciences which are but the record of material memory sought in the mind only for abstract theories, but in the sense-impressions for the practical verification of them. This course was fatal. It resulted

in making concepts subservient to sense experience, in corrupting the laws of thought, and in perverting the view of what was natural and necessary. Memory, as the hand-maid of true knowledge, ought to seek in mind not merely its law but also the exemplification and verification of law.

CHAPTER VII.

THE NATURE OF CONCEPTS OR GENERAL IDEAS.

Nominalism and Conceptualism—The Antithesis of the Individual and the Concept fallacious—The Derivation of Concepts from Instinct ?—The Concrete is the Simple and is the Basis of Explanation.

Nominalism and Conceptualism.

Another of the contradictions in our experience, which, like Time and Space, and Freedom and Causality, have played a great part in the history of philosophy and given rise to much controversy, is that between the general idea and the percept. The question of the origin of general ideas resulted in the ancient and apparently irreconcilable disputes between nominalists and conceptualists. The trend of Bergson's philosophy—although he has himself been guilty of indulging in and abusing these artificial distinctions—supports the conviction that these wordy wars were artificial, bred by misunderstanding due to the setting up of abstractions and pitting them against each other. Nobody has shown better than Bergson—and that in succinct terms—that nominalism and conceptualism, so far from being contradictory, really imply each other. The individual particular on which the nominalists laid chief stress could never have arisen without a concept, and was in fact nothing but a concept. Similarly, the general idea always pointed to individual particulars, and, especially in the eyes of the empirical and

Associationist school of Psychology, was nothing but an individual particular. The nominalist was a conceptualist and the conceptualist was a nominalist. They both really belong to the same school, and that school the Intellectualist.

We should have expected that Bergson, after showing the fallacies of nominalism and conceptualism, would have cast aside as untenable these unreal distinctions and returned to concrete experience. Instead of doing that he perpetuates the habits of thought of nominalist and conceptualist, nay, even justifies them. Bergson errs, to begin with, in saying that the common postulate of nominalist and conceptualist is that we ("Matter and Memory," p. 205) "start from the perception of individual objects . . . considered as so many realities given to immediate intuition". The objects with which nominalist and conceptualist deal are not individual or real objects at all but discrete particulars, and they are not given to "immediate intuition" but to sense experience which we have shown to be in no sense "immediate".

In order to trace the genesis of the concept, we must start from concrete experience and show how it is deformed by material action and how habit and repetition make banal our experience and lead to the solidifying of general ideas. On this line of thought we should never arrive at any dualism between concept and percept. Bergson also goes back to experience for the origin of general ideas, but the experience to which he returns is not concrete experience but mere instinct. He here follows his usual plan which he adopted in his analysis of time and space, of quality and quantity, of starting from some undifferentiated "unity," and splitting it into two opposing abstractions. He writes ("Matter and Memory," p. 205): "It would seem, then, that we start . . . from a confused sense of the *striking quality* or of resemblance: this sense, equally remote from generality fully conceived and from individuality clearly perceived, begets them both by

a process of dissociation. Reflective analysis clarifies it into the general idea; discriminative memory solidifies it into a perception of the individual." Thus the dualism between percept and concept is accounted for and justified.

The Antithesis of the Individual and the Concept Fallacious.

This antithesis between the concept and the individual perceived is false. In fact, the individual and the concept as they are developed from abstractness to concreteness, instead of opposing each other, tend to coincide. Bergson falls into the fallacy of supposing that the concept is arrived at by abstracting from particulars. Thus he writes (*ibid.*, p. 205) that the "full conception of genera demands an effort of reflection by which we expunge from a representation the details of time and place". But the characteristic of a concept is not that of excluding but of including detail, and in this respect the mark of the concept and of the individual is the same. Hence it is quite wrong to speak, as Bergson does, of a faculty of noticing differences as contrasted with a faculty of conceiving genera. The faculty of perceiving differences or of distinguishing individuals, and the faculty of forming concepts are one and the same. Bergson's notion of a concept is that it is an abstraction, especially in relation to perceived things, whereas, in fact, the plane of conception is more concrete and includes more of the detail of experience than the plane of perception.

Equally fallacious is the abstract opposition—corresponding to the antithesis of percept and concept—which Bergson sets up between dream-life, which simply contemplates a multitudinous series of particular images, and the life of an unconscious automaton, which reacts repeatedly in the same fashion to its environment. Bergson supposes the first to be characterised by a perception of differences, the

second to be characterised by a consciousness of resemblances. Thus he writes (p. 201) that the first would leave " to each image its date in time and its position in space, he " (the dreamer) " would see wherein it *differs* from others and not how it resembles them ". Bergson here supposes that one could see differences without seeing resemblances. But a series of mere differences would have no content, and would only amount to a repetition of the same thing or state. In what respect would this differ from the bare consciousness of resemblance? Differences and resemblances arise only by relation to each other. There is no power of perceiving differences apart from the power of knowing resemblances. To see a resemblance is an act of differentiation. Dream-life and conscious automatism are quite compatible and indeed are one and the same thing. Automatic consciousness which, says Bergson, sees vague resemblances between a past and a present situation is also a consciousness which like dream-life passes through an endless series of meaningless detail. And again, the dream, which Bergson says is characterised by the perception of differences, sees these differences so badly that it attempts to find the most bizarre resemblances among particulars that have only the remotest connection with one another.

We are wholly at issue therefore with Bergson when he writes (*ibid.*, p. 209), " yet these two divergent operations of the mind, the one by which it discerns individuals, the other by which it constructs genera, are far from demanding the same effort or progressing with the same rapidity. The first, requiring only the intervention of memory, takes place from the outset of experience; the second goes on indefinitely without ever reaching its goal." Individuals must be *discerned*, not *merely perceived;* and for their discernment we require more than " the intervention of memory "; we require conception as well. Here again we have the view that genera are arrived at by analysis of percepts, and, as of course the process of analysis is

endless, conception would then have no goal. But in our view the percept arises out of the concept by analysis; the concept is the goal of the percept and takes up the percept within itself. Again, it must not be assumed, as Bergson says (*ibid.*, p. 210): "The first (perception) issues in the formation of stable images, which in their turn are stored up in memory; the second comes out in representations that are unstable and evanescent". On the contrary, the images of perception or of dream-life (pure memory) have less permanence, as they have less individuality than the concept.

It is a gross error to suppose that a concept is simply a formula for a series of percepts—a convenient summation of a number of particulars. This would make the concept a sort of refined percept, the symbol of a number of other percepts. No amount of percepts would ever generate a concept; on the contrary, there can be no percept without a concept. A percept is but a depotentiated form of concept. The genuine concept always negates the percept, including in itself all the content of the percept. There is nothing in the percept which is not already in the concept. The concept makes the percept unnecessary. The idea, abstract though it be, is more concrete than the perception. According to Bergson, concepts must look to perception for verification and enlargement. On the contrary, if I want to extend and deepen my concept, as e.g. of a lion, I must pursue not the way of external perception, but the way of intuition. In order to know the lion better, I must deepen my knowledge of myself, and of the one true Life, I must return to concrete experience. By multiplying our external perceptions of the lion, we are apt to materialise our concept, to make it narrowly utilitarian, relative to the structure of the human body, and so to depart from the truth. Thus, our notion of a lion is very likely to include a movement of repulsion and an emotion of fear, springing from the state of war that generally reigns between man and the animal kingdom. This however is an artificial state of affairs,

and our concept of the lion is relative merely to the present constitution of man and of human society, and is so far false. The truth of the scientific biological concept of a lion is of a strictly limited kind. In order to reach the fuller truth we must withdraw the false hypothesis that man or lion is a material being. I cannot know things or bodies ; I can know only mind. All beings must be brought back to their spiritual reality before I can know them. Our ordinary concepts, so far from being referred to perception, must be dephenomenalised. The concept itself is a living state of consciousness more individual than the so-called material individual. The more the concept deepens and comes nearer Intuition, the more it comes to coincide with the reality to which it refers, and the more does this reality lose its appearance of externality. Here there is no distinction between matter of sense and forms of mind. " Sense," so-called, is seen to be not matter, not external, but the outcome of mind.

The Derivation of Concepts from Instinct ?

Bergson's theory of the concept overturns the true relation of percept to concept. His leading assumption, that the mind is dependent on the external world, here again comes clearly out. His view of the origin of concepts is that resemblances or qualities exist in the outward world, are perceived through the sense organs, and thence conveyed into the mind in the form of vague concepts. The controlling factor in the selection of the outer resemblances is appetite or material utility. Thus he gives as an instance of an inchoate kind of concept which could serve as progenitor of the logical concept, the herbivorous animal's consciousness of grass. The animal's awareness of grass is like a concept, because it does not distinguish various kinds of grass, does not perceive the colour, smell, or locality of grass, but simply grass good for eating.

This derivation of the concept is based on the vicious notion that the concept is more abstract than sense experience. All this is a mere pretence at an explanation and deserves to rank only as mythology. The forms of animal consciousness can no more serve as the key to the human mind than the buzzing of bees could serve as a clue to the music of Bach or Beethoven. Whilst the human mind is needed to elucidate the mentality of animals, the modes of behaviour of animals, on the other hand, can afford little light to the human mind in its search for a solution of its metaphysical problems.

This mode of reasoning is certainly subject to the charge of explaining *obscurum per obscurius*, i.e. of attempting to account for our relatively clear concrete mental life by reference to merely hypothetical states, or lower forms of conscious life. Bergson is well aware of this objection. This is the extraordinary way in which he meets it (" Matter and Memory," p. 206) : " It may be urged that we are only throwing the problem further back, that we are merely relegating to the unconscious the process by which similarity is discovered and genera are constituted. But we relegate nothing to the unconscious, for the very simple reason that it is not, in our opinion, an effort of a psychological nature which here disengages similarity ; this similarity acts objectively like a force, and provokes reactions that are identical in virtue of the purely physical law which requires that the same general effects should follow the same profound causes." He denies the charge of tracing the origin of concepts to the unconscious by saying that he refers it to the purely physical. But is not the physical realm the lowest form of " unconsciousness " ? He traces back general ideas to physical laws—but are not these physical laws abstractions, and do they not imply the very states of mind, namely concepts, which they are brought in to explain ? In the language of John Caird (" Introduction to the Philosophy of Religion," p. 88), " the fundamental fallacy which all such representations involve is, that they

tacitly presuppose, and must needs presuppose, at the beginning, what they profess to reach at the end. You cannot get to mind as an ultimate product of matter, for in the very attempt to do so, you have already begun with mind." (*Ibid.*, p. 94): "You cannot evolve thought out of the forces or material energies of nature, seeing that in order to any knowledge of these, nay, to the very existence of these—if the word existence is to have any meaning for us—thought is already presupposed."

The incautious use of materialistic analogies to explain the higher processes of mind finally lands Bergson in materialism. He derives the mental from the non-mental, thought from things ("Matter and Memory," p. 207): "Hydrochloric acid always acts in the same way upon carbonate of lime—whether in the form of marble or of chalk—yet we do not say that the acid perceives in the various species the characteristic features of the genus. Now there is no essential difference between the process by which this acid picks out from the salt its base, and the act of the plant which invariably extracts from the most diverse soils those elements that serve to nourish it. Make one more step; imagine a rudimentary consciousness, such as that of an amœba in a drop of water; it will be sensible of the resemblance, and not of the difference, in the various organic substances which it can assimilate. In short, we can follow from the mineral to the plant, from the plant to the simplest conscious beings, from the animal to man, the progress of the operation by which things and beings seize from out their surroundings that which attracts them . . . without needing any effort of abstraction, simply because the rest of their surroundings takes no hold upon them; this similarity of reaction following actions superficially different is the germ which the human consciousness develops into general ideas."

In criticism of this, the words of Caird are again appropriate (Introduction to "Phil. of Relig.," p. 94): "The second vice involved in materialistic theories is that of

attempting to make mechanical causation the master principle by which all the phenomena of the world, from those of inorganic nature up to conscious intelligence, are explained". The mistake of Bergson is that he begins his explanation from the wrong end, namely, from the abstract, and not from concrete mind. For it is the concrete that serves to explain the abstract, and not vice versa.

The Concrete is the Simple and is the Basis of Explanation.

In tracing the evolution of mind from matter, Bergson traverses the principle that he had laid down at the opening of the third chapter of "Time and Free-will," page 141: "Often, in fact, the so-called simple notion—that which the believer in mechanism regards as primitive—has been obtained by the blending together of several richer notions which seem to be derived from it, and which have more or less neutralised one another in this very process of blending, just as darkness may be produced by the interference of two lights. Regarded from this new point of view, the idea of spontaneity is indisputably simpler than that of inertia, since the second can be understood and defined only by means of the first, while the first is self-sufficient. For each of us has the immediate knowledge (be it thought true or fallacious) of his free spontaneity, without the notion of inertia having anything to do with this knowledge."

Following this line of thought, we should say that the physical laws to which Bergson points as an explanation of general ideas, are not primitive, that they arise from the neutralising of notions much richer than themselves, and that it is fallacy to suppose that these richer notions are derived from these mechanical laws or quasi-mechanical laws. Now, just as general ideas are, as we have shown, richer than perceptions of the outer world, so, we contend, they are also simpler. And if we are to follow the rule of using the simple to explain the confused and complex, then

we must use our general ideas to explain the processes of inorganic and organic nature, and of animal life, and not vice versa.

Originative and creative consciousness, and not automatic movement, is the primary fact and must be made the basis of all explanation. We must therefore oppose the statement ("Matter and Memory," p. 209): "This idea of generality was, in the beginning, only our consciousness of a likeness of attitude in a diversity of situations: it was habit itself, mounting from the sphere of movement to that of thought". Here Bergson makes an abstract separation between sameness and difference, and attributes diversity to the environment of the living being, and mere empty identity to the living being itself. This is the opposite of the truth. The living being has more internal diversity, more individuality, than the various situations in which it finds itself. We must contend that the living being contains a consciousness of diversity, not less than a consciousness of bare resemblance. Mere habit is not the characteristic of conception. Conception is further from the abstract—which is the automatic or the habitual—is more marked by individuality than the other mental functions, and is nearest to that living movement of intuition which changes freely, i.e. without stimulus from the outward environment. It is when concepts are separated from the living process of thinking and regarded as fixed and final results, when they are held as enclosed in words, which are but the mere exuviæ of thought, and when they are subjected to intellectual analysis, that the notion arises that the concept is something automatic corresponding to habitual movements in the outward life. The concept is not to be opposed to the individual. Bergson's view is due to his preoccupation with science. But the higher and richer concepts become, the more individuality they possess, as in the creation of all the best works in sculpture, painting, poetry and music.

Bergson's own thought cannot be developed without the admission that the concept encloses the variety of our experience. Thus he writes ("Matter and Memory," p. 205): "A priori, indeed, we may expect the clear distinction of individual objects to be a luxury of perception, just as the clear representation of general ideas is a refinement of the intellect". Again, on the following page he speaks of the "superfluity of perception" on the part of an animal that begins to distinguish one aspect of its environment from another. Now, if perception is naturally only aware of vague resemblance, whence does this distinguishing of diversity, this "luxury" or "superfluity" of perception come? Whence, but from conception? What is luxury to perception is but common necessity to conception. What Bergson sets in contrast, "the clear, distinction of individual objects" and the "clear representation of general ideas," are really one and the same. The refining process of ideation does not obliterate actual distinctions but reveal them. The clear distinction of individual objects is neither a property nor a "luxury" of perception, but is a function of concrete thought.

We must reject the whole doctrine that the mental world is derived from the physical world, that conceptions copy perceptions, or that the understanding imitates nature. We cannot consider it right to say with Bergson ("Matter and Memory," p. 209): "It is enough to say that the understanding, imitating the effort of nature, has also set up motor apparatuses, artificial in this case, to make a limited number of them answer to an unlimited number of individual objects: the assemblage of these mechanisms is articulate speech". Now, as we have already shown, and as Bergson has given us sufficient warrant to believe, nature is a product of the understanding; it is through and through in all its works and modes of behaviour constituted by the intellect. How then can it be said that the understanding "imitates the effort of nature"? Can nature make any effort at all? And why does he imply

a contrast between the artificial mechanism of articulate speech and the natural mechanism to be found in the physical world? Has it not been shown that the mechanical conception of nature is a parody of actual life and experience, that it has no basis in actual facts, and is in the strict sense of the term an artifice of the human mind more mechanical and more artificial than that other artifice, human speech? There is no such reality as natural mechanism—all mechanism is mental in origin. The truth is, "Nature" is made to copy the laws of nature, that is a form of human speech. We must reverse the Bergsonian assumption that physical nature contains more variety than speech. On the contrary, human speech—extended to include all forms of symbolism, such as "music," "art," etc.—is more ample and spontaneous than the laws of nature, and displays more diversity than physical nature.

CHAPTER VIII.

THE VALIDITY OF THE NATURAL SCIENCES.

Sensations not original and not Matter of Knowledge—The Fallacies of Empiricism and A-priorism—Metaphysics reverses the Methods of the Sciences—Bergson's "Introduction to Metaphysics"—Faith and Works—Criticism of Kant's distinction between "Subjective" and "Objective"—Trying to Rationalise the Irrational.

Sensations not Original and not Matter of Knowledge.

One of the corollaries of the preceding argument is that external perception, so far from being the gateway of knowledge, effectually blocks the path to it. Knowledge is imprisoned by the senses, not communicated through them. "Sensations" (in the usual psychological sense) are not the data of, but the debris of, knowledge. They are supposed to be the ultimate elements of experience which originate, we know not how, of which therefore no explanation can be given, and which must of binding necessity be accepted as they are—no possibility of rejecting them being open. On the contrary, the heredity of sensations is easily found; they are not necessary but accidental or hypothetical, they are not novel or original, but characterised by banality and uniformity.

This is a point the consequences of which are constantly overlooked. Royce, in his "Outlines of Psychology," in discussing the theory of sensations as ultimate elements of consciousness, clearly points out that such elements are

the results of analysis; yet, when he treats the topic of mental images, he regards these images as the outcome of previous sensations. Now, what is this consciousness, the analysis of which results in the finding of sensations? Is it not a consciousness filled with concrete memories and concepts referring both to our own experience and to that of other personalities like ourselves? If this is so, the images must have been in consciousness before sensations. How then can mental images be derived from sensations? Moreover, as Ward notes, in his "Realm of Ends," all human cognition is re-cognition; and this rule must apply also to psychological cognition. The cognition of a sensation must be recognition. Here again we are brought back to memory. Sensation is then only a diminished mental image or an image whose original tone or colour has been worn off by repetition.

The reason why we regard the image as fainter and less objective than the sensation is to be found in that habitual inversion of experience, whereby we attribute an undue importance to those parts of our memories that deal with the immediate present, and assign to them a false externality. The same tendency is illustrated in the way in which we regard the sensation as less real or less objective than the outward object. It is the function of metaphysics to penetrate this materialistic illusion and to undo its effects; and to that end it must move in a direction exactly opposite to that which makes the descent towards materiality. When we are at the point of view of sensation, we must abandon the point of view of external perception. The science of psychology involves the subversion of the rest of the natural sciences. Similarly, when we are at the point of view of the concrete image, we must abandon the point of view of mere sensation. The overlooking of this principle leads to many mistakes. It is commonly said that our loftiest flights of thought, our most refined experiences are accompanied with sensory experiences or sense-images. These latter, however, are remnants of a

point of view which we ought to have transcended, and owe their appearance to the illegitimate intrusion of psychological analysis. At the highest level of experience sensation disappears. The higher excludes the lower as such. The science of psychology is incompatible with concrete life.

Neither the external perceptions of natural science nor the internal sensations of psychology involve any addition to or enrichment of our experience. It may be objected: Do we not see or hear something new by the avenues of sense-perception every day of our lives? When I see a Chinese pagoda or New York sky-scraper, does not something novel enter into my experience? To this we answer: The architect who first conceived and pictured a pagoda or sky-scraper introduced something relatively new into experience. The outcome of our own free activity is always fresh and original at the same time as true and objective. But the builder who, with the assistance of masons, carpenters, labourers, etc., built from designs the pagoda or sky-scraper, and the spectator who sees the building simply repeat the architect's thought. Their experience is a reassortment of items of past experience.

In order that pagoda or sky-scraper may exist, i.e. that the ideas of them may be realised, it is not necessary that they be materialised. The creative architect, in order to realise his ideas, can dispense with the labour of material builders—indeed, he must dispense with it. For to materialise his thought is to stereotype it, to make his thought return upon itself, halt, and mark time.

We cannot take into our minds or copy any natural or material structure without submitting ourselves to the materialistic process by which it first arose, e.g. it is impossible to construe to thought a natural organism like a tree without, in some sense, going through the same physical process of growth as the tree passes through. This, if it were possible, would involve a disability of the mind, or a renouncement by the mind, of its rights. The natural

sciences make a virtue of this disability, and voluntarily submit to this crippling of function. They take nature for what it is not, namely, a given result apart from the ideas which lie behind it and which are independent of it. It is as if they studied the movements of the masons and hodmen engaged in building the pagoda or sky-scraper, without paying any attention to the design of the architect. Their study of material processes is labour thrown away; nay more, is a positive hindrance to their grasp of the creative ideas of which nature is only a temporary copy. Their studies tend to make man subservient to material processes, and to close the eyes to the fact that the mind of man has all that nature has—and much more. Physical nature in itself (that is, divorced from mind) is outworn and secondhand, therefore not to be studied or copied for its own sake. Neither is nature to be improved upon; we have rather to improve ourselves away from it.

The discoveries of the natural sciences are not revelation in the proper sense of that term, and especially when turned to utilitarian ends cannot serve to elevate the race.

If the account of duration is true, then it is quite inexplicable how science could ever arise. Science is always orientated to the past. It is a study of past history. Geology, botany, biology are historical sciences. They investigate what has already happened. Thus, the evolution of the sciences involves involution or retrogression, since the sciences are always going back to their starting-point.

Mechanical inventions are like natural laws, repetitions. They are modelled on natural forms, and have the effect of enslaving men to nature.

James Hinton, in his book of philosophic fragments, "Philosophy and Religion," p. 9 f., remarks: "Man constructs science as the bird builds its nest; the bird arranges things in a way accordant with its own nature, and its sensations; it does what it must, it carries out its laws of thought, just as man does in Science; it puts them right,

it groups them in what appear to it their natural and necessary relations, solely with reference to themselves—and then it is a nest! So Science becomes a moral nest, in which man's spirit reposes." Hinton writes this in approval and justification of what he names (with a capital S) Science. On the contrary, it is just upon this statement (and we could hardly find a better expression of our own view of natural science) that we would ground our condemnation of it. Does not the illustration argue that science is the outcome of mere automatism, of animal instinct, and that the consummation of science would be the entombment of the spirit? Science, judged by this analogy, would be but a temporary expedient, a utilitarian device, not eternal disinterested truth.

The Fallacies of Empiricism and A-priorism.

Hinton's judgment on the natural sciences comes much nearer the truth in a striking passage (*ibid.*, p. 10) which we cannot do better than quote at length: "It was the old practical error of the 'a priori' philosophers that theories to be true needed only to agree with the laws of our own conceptions; it is the recent practical error of the empirical philosophers that theories to be true needed only to agree with the facts. In each case the same error of defect.

"Instances of the disregard of the laws of our own conceptions in the formation of recent scientific theories are innumerable: in fact, that vice pervades the whole scheme and structure of modern science. Either way, of course, agrees equally with the facts: indeed, the facts suggest rather the wrong than the right, and therefore by men who thought their only or chief business was to make the theories accord with the facts, the wrong was naturally adopted. But the structure of our minds demands a reversal of these views, an entire turning round of science, a reassertion of the laws of mind.

"The 'a priori' chimeras had at least this advantage, that in the very nature of them they were obliged to be expressible and therefore conceivable; but the chimeras of experimental science will not even submit to this slight restraint. . . .

"That was a great error of Bacon's: he thought truth was in nature instead of in man, and that formulæ correctly expressive of natural facts must therefore be true. The very error of the 'a priori' men, in another form, but still identical, for they believed that formulæ correctly expressive of laws of thought must be true. And has not this falsified science ever since, the idea that formulæ correctly expressing facts must be true? The error is palpable,—those only are true formulæ which bring facts into accordance with the laws of thought. Is not this the error of the mathematicians: using hypotheses merely as means of calculation? Bacon thought also that by changing externals he could alter internals, could eradicate a false intellectual habit by substituting a new method. Just what these men do who are for reforming mankind by altering institutions."

The error of the a priori philosophers was that their concepts were separate from living thought and, just because of this abstractness, tended to materialism; and furthermore, that they did not believe in the power of their own concepts to offset or withstand the onset of the "facts" so-called. They did not see that the "facts" which they feared or despised were the results of ready-made abstractions, and that by correcting their own abstractions, i.e. by rendering them concrete, they could get rid of the "facts," i.e. the phenomena, altogether, and thus restore the harmony of life.

Hinton is not quite self-consistent in his statement of the correct way out of this impasse. He says: "Those only are true formulæ which bring facts into accordance with the laws of thought." This statement does not sufficiently guard against the error to which both a-priorist and

empiricist are prone, namely, of trying to rationalise the irrational, of construing the facts according to given hypotheses or supposed laws of reason. Concrete thought leaves no facts outside itself.

According to the statement of Hinton himself, "either way agrees with the facts". The facts are really neutral: they are made by empiricist and a-priorist alike to suit themselves. The external world plays the part of the colourless screen on which each outlines his own pictures, misnamed facts, more properly denominated appearances; each conveniently forgets that the appearances are reflections of himself, not signs of any supposed "thing in itself". Concrete mind if consistently followed will prevent the uprise of phenomena. If, however, the "facts" be pursued in the spirit of aimless curiosity or in the quest of a sensation or in the pursuit of material comfort, i.e. what Hinton calls in a felicitous enough phrase, a "moral nest," we shall be lured further and further on until we get entangled in a hopeless maze. This is the present position of the material sciences. They make and multiply their problems as they go along. Each scientific hypothesis is itself a problem, and necessitates other problems. Facts beget theories, and theories beget facts. We are sometimes called upon to cast aside our theories, i.e. our prejudices, and contemplate the facts impartially. This is impossible. We ought, with equal justice, to be called upon to discard the facts which are as much matter of prejudice as the theories. The only consistent way is to abandon both facts and theories. To quote Hinton again (*ibid.*, p. 12): "Laws may be true, though not agreeing with facts, the facts being incorrectly observed or regarded. . . ."

Empiricism leads to the same results as a-priorism. The pursuit of knowledge by means of the natural sciences has led to the same labyrinth of confusion into which the attempt of the scholastics to arrive at truth by way of abstract ideas and deductions from them brought us. It would now be quite appropriate to apply to the natural

scientists, especially those turned metaphysicians, the satire which Milton wrote of the " high priori " philosophers who were at the same time fallen angels,—who

> . . . apart sat on a hill retired
> In thoughts more elevate, and reason'd high
> Of providence, foreknowledge, will and fate,
> Fixed fate, free-will, foreknowledge absolute,
> And found no end in wandering mazes lost.

The scientists have descended from the " hill " of a-priorism only to lose themselves in the morass of materialism. To them the satiric words of a modern poet (Ambrose Bierce) can be fittingly applied :

> To one who journeying through night and fog
> Is mired neck-deep in an unwholesome bog
> Experience like the rising of the dawn
> Reveals the path he should not have gone.

All natural science is a harking back to the past, an analysis of dead experience ; and is properly to be described as a re-tracing of the " path one should not have gone ".

But the " experience " which the poet here speaks of is not revelation in the proper sense of that term, it is not the dawn of the genuine orb of day. We do not need the sun to show us when we are " mired in a bog ". One may recognise that one is " lost " without having the power to know or follow the true path. The scientists have indeed, as yet, hardly come to an inkling of their true position. Their science is not a prelude or prologue to genuine knowledge. Even though they do retrace, in thought or experience, " the path we should not have gone," and get out of the bog at the point where they entered it—that does not ensure them finding the right road. The " experience " which is desiderated, which the poet hints at but does not fully reveal, involves an absolute renouncement of the " path we should not have gone," and is not, as might be hastily supposed, a deepened and refined sense-experience, an improved wisdom of the world, nor a swing back to abstract concepts, but an independent metaphysical intuition.

Metaphysics Reverses the Methods of the Sciences.

We must clearly distinguish between the fallacious mode of explanation adopted by science and the true metaphysical method. The first is expressed by Bergson, when he writes that what characterises reality is, first, presentation to consciousness, second, regular connection. Thus science assumes that the phenomena are what they appear to be; and for it explanation consists in referring one phenomenon to another. Metaphysics, on the other hand, asks the question: Why the facts should appear at all? It asks: Upon what are the facts dependent? It does not accept the phenomena as given, in the manner that science does. Just because they are "given," they must be wrong or wrongly viewed. Metaphysics can accept nothing as given: it seeks for the productive agency in the phenomena, or rather points out the inefficiency or passivity which allows room for the uprise of the phenomena. Its aim is not to substantiate phenomena by instituting a regular connection between them, but to displace phenomena by concrete experience.

For science, cause is but another effect, cause and effect are practically interchangeable: the nexus between them is mechanical. In the case of a cat pursuing a mouse, science is in the position of not knowing whether it was the appearance of the mouse that set the cat in chase, or whether it was the appearance of the cat that set the mouse running. It never reaches final or efficient causes.

For it the two phenomena are simply concomitant and reversible. It does not matter in which order they are taken. There is no genuine first, and no genuine second. Metaphysics, on the other hand, seeks to find out the relation of dependence: it deals with genuine causes or powers. It shows that phenomena are rooted in subjective inertia; that the seemingly external is only a case of the familiarly internal: it brings all nature back to terms of consciousness.

Science deals only with effects: metaphysics shows, on the one hand, that it is impossible to rise from effects to causes, and on the other, that the mind has an independent knowledge of causes, and that it is totally misleading to study effects without knowing causes. Science assumes that we can only passively observe, or play the part of the inert recipient and transmitter of external forces; but metaphysics shows how the mind can genuinely act, i.e. can rise to the intuition of real causes, which displace the phenomena, the supposed effects, and obviate the necessity for inventing a tangle of scientific hypotheses.

Philosophy must strive radically to change our viewpoint; it cannot do so and at the same time serve the interests of science. The two standpoints are incompatible. If we are to be consistent followers of metaphysics, we must follow intuition without intermingling of incongrous scientific methods.

Metaphysics reverses the mode of viewing reality adopted by science. Science begins with the lowest aspects of experience, i.e. the most abstract, and "advances," adding on externally fresh aspects, without however showing how they are related. The sciences that deal with the various aspects of experience, which indeed are as endless as the number of hypotheses that may be put forth in respect of them, are left relatively independent of each other, and it becomes an insoluble problem to co-ordinate their results. Many assume that we must be content therewith, that we must simply accept the empirical results, and that a unity of knowledge is impossible. But unity of knowledge is the fact and the only possible fact; and that it cannot be attained by the sciences will become more evident as they advance and show the contradictions which they produce. The concept of "Science" as a unified body of knowledge which encloses and sums up the results of the various sciences has no foundation.

Metaphysics shows an independent mode of reaching truth; it cannot start from the results of the various

sciences, or confine itself to correcting their errors, or reduce itself to a " philosophy of nature ". It leaves aside nature and the sciences altogether, starts from concrete experience, and never leaves the concrete. It knows of no reality outside experience. It is an error in mathematics to assume that the spaces, figures and numbers with which it deals are real. It is equally error in the mechanical sciences, that the series of events succeeding each other in time is a real process. It is an intellectual process and nothing more. Reality does not exist in that way. There are no things which go through this treadmill of external necessity: it is simply we that assume that they behave themselves in that way. This whole manner of viewing reality is to be set down to the subject. The same has to be said about the laws of chemistry and biology. There are no reals that behave in actuality as they are represented as doing in our text-books of chemistry and physiology.

Science begins with perceptions and sensations, and then " advances " to concepts. Metaphysics makes manifest that the fundamental nature of perceptions and sensations is that they are abstract concepts, artificial products of the human mind. For metaphysics there are no perceptions or sensations. We seem to ourselves to experience them: but that simply means that the abstractions of the sciences, including psychology, have infected our whole experience. No metaphysics can be made out on the basis of common experience: if we accept the ordinary division between sensations and concepts, our experience will never attain clearness. Intuition steps wholly outside the dualism of senses and understanding. Philosophy is not the handmaid of the sciences, nor do the sciences bring grist to the philosopher's mill. The ground must be cleared of the natural sciences before metaphysical thinking can begin.

Bergson's "An Introduction to Metaphysics".

This short work supplies Bergson's views of the relations of Science and Metaphysics, and claims consideration at this point.

Let us first note Bergson's protest against the superstitious cult of language. All language is symbolic; therefore it is impossible to *express* metaphysical truth, i.e. to put it in verbal form, or in any other external form. Truth can be obtained only as we recede from the outward. Here Bergson, superficially at least, is at one with Hegel. Philosophy properly speaking is true life or, as Bergson phrases it, "integral experience". It cannot be mediated in any way, or obtained by proxy: we must live it.

What, then, becomes of science? Can science be said to belong to genuine uncorrupted experience? How can Bergson's attempted reconciliation of science and philosophy stand, in view of his own repeated statement that science is symbolic and philosophy non-symbolic? He states ("Introduction to Metaphysics," p. 59) that, "*To philosophise, therefore, is to invert the habitual direction of the work of thought*" (italics Bergson's). The habitual trend of thought is towards science and matter. Science and philosophy must, therefore, negate each other. One cannot traffic in symbols, i.e. practice science, and philosophise at one and the same time. Bergson says vaguely (*ibid.*, p. 60): "Metaphysics, which aims at no application, can and usually must abstain from converting intuition into symbols". But if it is the whole business of metaphysics to get clear of symbols, why should it allow its work to be undone by the conversion of intuition into symbols? Moreover, *can* intuition be converted into symbols? Are we not bound to deny it, in view of Bergson's own statement on the next page (p. 61): "On the contrary, the further it goes, the more untranslatable into symbols will be the objects it encounters". If we really are at the philosophic

point of view, we could never find any use for or need of science. Science is a series of photographs, which, however numerous, never effectually nor completely give the real. Science bows to the uniform, philosophy to the man. Why be content with the photograph or the uniform, when you can converse with the man himself? Science should be regarded, not as subsidiary to philosophy, but as an abortive attempt to philosophise. How can the mind which imprisons itself in symbols ever work freely? Bergson makes a false step in admitting that, whilst it is the function of philosophy to invert the work of science, it is legitimate for science to invert the work of philosophy.

If ("Introduction to Metaphysics," p. 64) "there are not two different ways of knowing things fundamentally," then science and philosophy cannot be equally valid. For science is a way of ignoring things, philosophy alone is a way of knowing "things". The sciences have their root in ignorance, not in metaphysics, as (*ibid.*, p. 64), "the ancient philosophers generally thought," and as Bergson himself also thinks.

If we have intuition, what need is there for science? The answer from some quarters is that, if philosophy has no need of science, practical life needs it. But is not practical, i.e. material, life a perversion of true life? And does it not in the long run prove thoroughly impracticable? "Practical" here means "instrumental". Practical life is fettered by its tools. Metaphysics dispenses with instruments, whether they be mechanical tools, percepts or abstract concepts. Metaphysics must renounce the utilitarian life, as indeed Bergson asserts it is free to do (*ibid.*, p. 60): "Liberated from the obligation of working for practically useful results, it will indefinitely enlarge the domain of its investigations". We cannot admit that science is necessary for the true life.

Metaphysics includes within itself a better life and practice than that which is served by science. In science life is turned away from itself towards an alien end, and hence is

reduced to the use of symbols and instruments. It is not life that needs science, but science that needs life; or at least continuously borrows from it. It is not so much life that is in need of the practical instruments invented by science, or that science is instrumental to life, but that science imposes upon life that apparatus of instruments which serve the special perversion of experience which science covets. A justification of science on the score of its practical usefulness can never stand good at the bar of metaphysics.

Intuition dispenses with science just as telepathy dispenses with telephony and telegraphy, or, just as telekinesis dispenses with mechanical locomotion.

Not intuition but hypothesis is at the root of science. Hence all science is relative; for hypothesis itself has no basis, and cannot be verified by the results that proceed from it, i.e. by the testimony that it makes for itself.

Bergson writes (*ibid.*, p. 78): "The masters of modern philosophy were men who had assimilated all the scientific knowledge of their time, and the partial eclipse of metaphysics for the last half-century has evidently no other cause than the extraordinary difficulty which the philosopher finds to-day in getting into touch with positive science, which has become far too specialised. But metaphysical intuition, although it can only be obtained through material knowledge, is quite other than the mere summary or synthesis of that knowledge." To us it seems that Bergson gives up his whole case by admitting that metaphysical intuition can "only be obtained through material knowledge". It is positively self-contradictory to combine this statement with the further declaration that metaphysical intuition is "*quite other*" than the mere summary or synthesis of that knowledge. Philosophy does not depend on a preliminary study of the results of the sciences. The sciences are so vast and complicated, and at the same time so contradictory in their deliverances, that no man can fuse them together. Bergson complains that the sciences

are "far too specialised," but is it not the very nature and virtue of the sciences to specialise? And is not this "virtue" of the sciences their peculiar vice in the philosopher's eyes? If we have to pass through the sciences before reaching philosophy, then the day of philosophy will never arrive; and this difficulty will become accentuated the more the sciences increase in extent and volume. Philosophy has not to wait on the sciences: it precedes them and makes them all unnecessary. Men follow science because they fail to philosophise, or because they philosophise wrongly.

Bergson on this point is hopelessly inconsistent. Thus, after declaring (*ibid.*, p. 8), "*Metaphysics, then, is the science which claims to dispense with symbols*" (italics Bergson's), he asserts further on (p. 18), "metaphysics cannot dispense with the other sciences"—which according to his own asseveration are symbolic.

It is illogical in Bergson, whilst holding that intuition properly speaking transcends symbols, to regard intuition as a power fertilising the mind to produce a crop of images and a variety of concepts. The higher cannot produce the lower. Intuition negates images and concepts—even the profoundest and most brilliant poetic image. The poetic image loosens the bonds of crass materiality, shows a relative independence of the external, and deals with ordinary things in play and sport. But none the less the poetic image is no product of intuition: it is always under the inconvenience of using conventional language: moreover, it never bridges the gulf between individual mind and reality. In intuition thought coincides with creation, i.e. creation abolishes the necessity of discursive thought or of picture-thinking. Philosophy is not, as is sometimes supposed, the faculty of abstract thought, but is the power of concrete experience. It is science which is the faculty of abstract thought, which attenuates and dilutes the confused abstractions of ordinary life.

Accordingly, we must call in question the statement

made (*ibid.*, p. 63), that "*intuitive knowledge is that which installs itself in that which is moving and adopts the very life of things*" (italics Bergson's). For what are things? Are they not made by science? Are they not the result of the abstracting tendencies of ordinary life? How can there be "things" at the intuitional level of life? It is science and not intuition which develops things and trys to install itself "in the very life of things". If it be "the business of metaphysics to invert the habitual direction of the work of thought," then intuition must abjure, instead of "installing itself in the life of things". Intuition suspends the course of nature and its prolongation in science—takes away the fictitious "life" of things and reveals the independent life of spirit. It is not an association with the "life" of things, but a communion with a superhuman reality.

It is no less fallacious to regard metaphysical intuition as an immersion in the psychic life of human selves—either our own selves or other selves—as to regard it as an immersion in the life of things. It is particularly false to confound intuition with the introspection of our own self. Thus, Bergson writes (*ibid.*, p. 8): "There is one reality, at least, which we all seize from within, by intuition and not by simple analysis. It is our own personality in its flowing through time—our self which endures. We may sympathise intellectually with nothing else, but we certainly sympathise with our own selves." Our ordinary awareness of our separate personality is certainly the product of analysis, and not of intuition. Our knowledge of our mental states and of our moral disposition is conditioned by unfounded assumptions and prejudices and, so far from being a self-evident intuition, is through and through pervaded by blinding illusions. We continually adopt theories of our own personality suggested by vanity or amour-propre, and by the reigning scientific hypotheses of the day. A man generally knows his own character no better than he does the characters of his contemporaries. And in no depart-

ment of life as in "intuiting oneself" does one need to be more on one's guard against the play of self-deceiving fancy.

Bergson labours in vain "to realise the much-desired union of science and metaphysics" (*ibid.*, p. 63). Metaphysics and the medley of the sciences cannot live side by side. They are as much opposed as God and mammon. The recent history of philosophy proves it. Science has at the present time almost extirpated the conventional metaphysics, or reduced it to servitude. Metaphysics takes up the odds and ends of the various sciences. It is made the handmaid of science from which it receives all its problems. Kant argued for the possibility of a science which was relative and the impossibility of a metaphysic which was absolute. It is because of the impotence of metaphysics that science has made such huge strides, and bids fair to usurp the throne of truth itself. Had metaphysics not been lamed but kept upright, the natural sciences would never have made any progress.

It is illogical in Bergson, after warning us against the illusions involved in the use of concepts, to offer us as a remedy for these illusions a metaphysic so-called intuitive, which however cannot live or do anything without forming concepts. Thus he writes (*ibid.*, p. 32): "But an empiricism worthy of the name"—which he claims his intuitive metaphysics would be—"an empiricism which only works to measure, is obliged for each new object that it studies to make an absolutely fresh effort. It cuts out for the object a concept which is appropriate to that object alone, a concept which can as yet hardly be called a concept, since it applies to this one thing." What is this concept, which Bergson calls also a "simple, unique representation," "a unique intuition," but an abstraction? Bergson, whilst he supposes himself to be moving away from abstraction, sinks deeper into it. His metaphysics is not concrete and intuitive but abstract.

Bergson implies that the advance of metaphysics is by way of forming *new* concepts and *new* language-symbols.

But the fact that the concepts or representations and the symbols of metaphysics are *new* does not get over the difficulty that they are concepts and symbols, i.e. according to his own showing, intellectual devices inexpedient and inappropriate for apprehending final truth. Thus the Bergsonian metaphysic, where it is not simply a vague feeling, a romantic yearning to enter into the life of all forms of being, an indescribable sympathy with various *tensions* of duration—in short, where it is anything definite at all—must resort to the abstracting processes of the natural sciences.

It is particularly disconcerting to find at the close of the " Introduction to Metaphysics "—after all his warnings against the pitfalls of language—Bergson comparing metaphysical intuition to a kind of inspired literary composition. Thus he writes (p. 76) : " Any one of us, for instance, who has attempted literary composition, knows that when the subject has been studied at length, the materials all collected, and the notes all made, something more is needed in order to set about the work of composition itself, and that is an often very painful effort to place ourselves directly at the heart of the subject, and to seek as deeply as possible an impulse, after which we need only let ourselves go. This impulse, once received, starts the mind on a path where it rediscovers all the information it had collected, and a thousand other details besides, it develops and analyses itself into terms which could be enumerated indefinitely. . . . Metaphysical intuition seems to be something of the same kind. What corresponds here to the documents and notes of literary composition is the sum of observations and experience gathered together by positive science." Is it not clear that this literary composition is symbolic from beginning to end, and that its form is determined, not by truth itself, but by the necessity of manipulating symbols for purposes of external or indirect communication between man and man ? This " impulse " is scientific or artistic, but not metaphysical. It is inex-

plicable how, after what Bergson has admitted, metaphysics can be put in the form of symbols. Literary composition has nothing to do with metaphysics. It is just this preoccupation with symbols that we must get away from before we can reach metaphysical intuition. We must deny that the Bergsonian metaphysics, any more than the natural sciences, has an intuitional basis. Instead of placing science, as he claims, on the rock of metaphysics, he has placed his metaphysics on the shifting sands of the sciences. Bergson has previously denied that metaphysics is a fusion or synthesis of the sciences. But if the above-quoted illustration has any point at all it tends to show that metaphysics is such a synthesis, that it assumes and adopts the work of the sciences, and bases itself on them.

Intuition and Intellect.

There is a fundamental ambiguity in Bergson's statement of intellect and intuition. Intellect ought to be the inverse or counterfeit of intuition. Intellect is sloth, intuition is pure activity. Matter or space is the opposite of intuition. Yet Bergson is continually hopping between the two points of view, not seeing that they exclude each other. He says that intellect breaks up what intuition gives, and that the concepts thus framed are reabsorbed in intuition again. He says that mind imitates matter in order to get the better of matter. If mind did this, mind would not be mind. The mode of thought which regards mind and matter as different degrees of reality is quite incompatible with the view that matter is a hindrance of mind. It is impossible to understand a co-partnership between mind and matter, when it is asserted that they move in opposite directions, and that the one annihilates the other. The same process cannot move in opposite directions at the same time. Mind must seek to disengage itself from matter and intellect. It cannot reabsorb into itself intellectual concepts.

Faith and Works.

A theological parallel here may be illuminating. The Bergsonian distinction between intuition and useful knowledge is analogous to the Pauline distinction between faith and sight. When St. Paul said (II. Cor. v. 7): "For we walk by faith, not by sight," he meant by "faith," intuition, direct awareness of a reality unattainable by the senses; he did not mean by faith anything less than sight, but something better; he did not mean that faith was blind and sight was revelation; but rather the reverse, that faith was insight and sight was dim. The one suspends and inverts material action; the other stimulates material action and is re-enforced by it. The basis of material knowledge is not an intuitive knowledge of spirit, but a blind belief, or impulse to action. The Pragmatists accept as final this knowledge relative to action, and seek for nothing beyond. Nay, further, it is this relativity of knowledge that recommends it to them. Bergson is right in pointing out that there must be a knowledge of truth beyond this relativity; but he allows the two kinds of knowledge to stand side by side and to supplement each other.

He asserts that material knowledge is useful to the metaphysician; but we cannot speak of "useful" apart from some notion of an end—and this is not forthcoming. On the other hand, intuition cannot be "useful" to or re-enforce material action. All metaphysical intuition involves the inner check, the stoppage of all natural and psychological processes. We cannot show our faith by works but by suspension of works. Those who, like St. James (Ep. of St. James, ch. ii.), insist on works as a necessary manifestation of faith, have, in accepting a perverted notion of faith, misunderstood St. Paul. St. Paul's doctrine of Justification by faith alone, i.e. by faith truly intuited, is perfectly self-consistent, and needs no

buttressing or correction from any other principle. Intuition like faith validates itself, needs no testimony, looks away from the senses, and constrains the senses to harmonise with it. Ordinary opinions and beliefs and scientific postulates look to the senses for verification, and hence produce " works ".

What is sense-given is really not " *given*," but artificially produced by postulates. It does not reveal the true world. It is vain to hope to reach " primitive fact " by way of body-perceptions. What is sense-given is not the immediate deliverances of consciousness: these are only revealed to intuition, wherein all difference between sense and concept disappears.

Intuition, should it be admitted to be in need of verification, or to be directed towards action, would at once sink to the level of a methodological postulate or speculation. Hitherto philosophy has mostly busied itself about drawing the more remote or theoretical results of speculation; science the more immediate or practical results.

Metaphysics cannot wait upon the sciences; its aim is rather to show the fallacy of their starting-points, and thus to abolish them. Science must wait on metaphysics. The natural sciences are an evidence of our helplessness. They do not supply the positive material for metaphysics, but rather constitute the negative element or emptiness, out of which metaphysics has to extricate itself. Metaphysics is—to borrow and adapt a phrase of Bergson—a thorough inverting of the habitual work of *scientific* thought. This is adumbrated by Bergson, and exemplified to some extent by Hegel, but not carried out by either. Both failed to see the fundamental contradiction between metaphysics and science.

There is absolute opposition between their ways of knowing. The one is intuitive, the other is conjectural and experimental. Metaphysics cognises directly and immediately, science only mediately, i.e. through bodily organs and material instruments, such as prisms, X-ray apparatus,

etc. Metaphysics must dispense with both. For it the material senses and their tools are only barriers between the mind and the truth.

Scientific instruments do not help to reveal the properties of matter. The Röntgen-ray apparatus, e.g. in making opaque bodies relatively transparent, only modifies a false assumption previously made. Instruments are always relative to the bluntness of our senses, and the more they are used, the more blunt our senses become. They cannot overcome or atone for the radical defect of the senses. If, however, we reverse our procedure and discard the use of instruments, on the same grounds for which we reject external perceptions as an impurity mingling with our sensations and return to concrete thought, then we find that for it the real is no material body—the human body itself is a whole eye and ear, a transparent image, wherein the contradictions of the senses are reconciled and brought to unity. Science, in fostering the use of all kinds of material tools, increases subjectivity and deepens the gulf between mind and matter. It may appear strange that this result should follow the pursuit of science; but it is nevertheless true. An age given predominantly to science will be full of "mal de siècle". The more the material sciences are cultivated, the less capable we become of direct communion with our fellow-men and with the universe of truth.

Science and metaphysics seek opposite ends. The one seeks the expansion of the material life, the other the narrowing of it and the development of the spiritual life. The one leads to an ethics of expediency, Hedonism or Eudæmonism, the other draws all life and practice within the sphere of religion. Science meets one need by inventing another—escapes one kind of suffering by creating a diversion, and shifting the seat of pain to another quarter. Scientific ethics and practice are always relative to pains and material desires. Metaphysics systematically transcends these pains and needs.

Science takes the photograph as the original reality, and the man who stood before the camera as the reproduction of this supposititious reality. It reduces the concrete to the abstract. Metaphysics always brings back the abstract to the concrete, and thus saves itself the necessity of forming hypotheses. It is when we overlook the fact that the photograph is derived from the man that we need hypotheses to account for the photograph. It is obviously impossible to frame hypotheses about ultimate Reality itself—though it has been the common illusion of many philosophers that this was necessary.

Science seeks to give laws to phenomena and thus poses as the lawgiver of nature, whilst all the time its course is really lawless. Its laws are mere rules of expediency picked up ambulando. Whatever semblance of law it has is borrowed from metaphysics. Metaphysics seeks not to impose laws on nature, but by abiding within the movement of mind itself to prevent nature from putting in an appearance. It seeks dominion, not by way of the study of external events, but by increase of spiritual knowledge. When metaphysics becomes an actual knowing of one's true self—or rather, a knowing of God—then no problem of an external universe arises. Metaphysical intuition is different from either observation in the natural sciences, or introspection in psychology. These latter seek to follow up all the items of the chain of phenomena, and to bind them together by a law; intuition seeks to grasp the internal condition that gives occasion to the phenomena, and thus to obviate the supposed necessity of studying them. Metaphysics seeks power—not as science does, by altering or interpolating effects in the chain of phenomena—but by going back to original causes which lie behind phenomena and with which phenomena have nothing to do. Science assumes that the sense-perceived is a reality or indicates reality. Metaphysics shows that the perceived conceals reality, and must be removed before we can reach genuine fact. Metaphysics apprehends a "thing" by referring it

to the comprehension of ourselves. We know an effect when we see it as the issue of our own thoughts and impulses. The perception of the external is a false interpretation of our sensations. Metaphysics seeks to reverse the tendency to externalise, and to prevent our internal states from becoming " things ".

Criticism of Kant's Distinction between " Subjective " and " Objective ".

This is a reversal of the common method of philosophy which generally assumes that it is its business to secure objectivity, to bridge the gulf between subjective experience and objective things, and to prove that things are not mere sensations. Thus James Ward (" Realm of Ends," p. 122) writes : " The sensory and appetitive experiences of a given individual are altogether immediate, beginning and ending with himself, not merely exclusively and inalienably his, but also in their particularity peculiar to him and different from the immediate experiences of all others beside. Such are the characteristics of experience logically included together as subjectivity. Experience as objective is the precise opposite of this. It is never immediate, that is, determined by sense or appetite ; on the contrary, it is or it may become an unreservedly common possession by virtue of just those factors which we call reason and morality ; for these are alike for all and binding on the thought and action of each. In experience as subjective we find only the particular and contingent ; in experience as objective we find always the universal and necessary."

In discussing the question : How does objective experience arise ? Ward goes on to refer with approval to the important distinction made by Kant between " what he called judgments of experience which have validity, and mere judgments of perception which are only subjectively valid " (p. 126). Kant's own words are : " All our judg-

ments are at first mere perception-judgments: they hold good simply for us, i.e. for our subjectivity. It is only subsequently that we give them a new reference, namely, to an object, and intend ('wollen') that they shall hold good for us not only at the moment but at all other times, and in like manner for all other persons."

Here philosophy employs itself in justifying or giving a metaphysical foundation to the natural tendency of the human mind to turn thoughts or subjective feelings into things, and thus also to give validity to the position of natural science and to its general procedure. The distinction here made between apperception and perception or between judgments of experience (objective) and perception-judgments (subjective) is entirely otiose. It is a distinction without a difference. No such importance as Kant, and Ward following him, lay upon it can rightly be given to it. Apperception cannot change subjective to objective, if by the latter be meant "real and valid". Ward points out that this objective world is generated and compacted through intersubjective intercourse. But an amalgam of subjective experiences still remains subjective and phenomenal. If, as Kant assumes, the experience of the subject in judgments of perception is practically worthless, then no amount of comparison and refinement of such experiences can result in valid judgments. Not even the categories, to which is assigned the task of transforming the subjective into the objective can give to phenomena a validity which they did not before possess.

The view of Ward that the objective world is constructed by intersubjective intercourse coincides, so far, with the view of Bergson that it is the life of society that induces men to externalise their feelings, i.e. to affix to them general terms whereby they are stabilised, handled and communicated. Both Ward and Bergson are alike in beginning with the experiences of individuals; but they differ in respect that the former counts "objective" or inter-subjective experience as far the most important, and depreciates subjective

experience ; whilst Bergson does the reverse. He condemns the tendency of social life to banalise the sentiments, to corrupt the original purity of our feelings, and to substitute conventional names and manners for individual experience and behaviour.

The error of Ward and Bergson lies in their common postulate—that the individual is a centre of experience. Inter-subjective experience is not built up out of the experiences of individuals, but is really prior to them. The way in which the child develops knowledge proves this. Not only its body but its very perceptions and sensations are determined by the social organism. Morality to which Ward attributes a considerable function in upbuilding the " objective " world, just consists in teaching the individual to forgo his own " subjective " experience, not indeed in favour of the experience of some other individual, but in favour of a unitary experience. But this more universal experience is not, as Bergson holds, more abstract than the experience of the individual, but more concrete. It is not society that denudes and eviscerates the experience of the individual, but it is the individual that conventionalises the experience of the social organism, which is more and other than a sum of individuals. The powers of individual genius are derived, not from individuals, but from universal experience, and mediated through the organism of which he is an expression.

Natural science begins with perceptions and advances to sensations, and then to concepts. Metaphysics must reverse this procedure. The fundamental nature of a sensation is that it is an abstract concept—an artificial product of the human mind. For metaphysics there can be no sensations. There is nothing in the realm of mind corresponding to the psychological concept of a " sensation ". The same argument that shows that there are no " things " shows also that there are no " sensations ". No doubt, we seem to ourselves to experience sensations, but that only means that the fictions of science have contaminated all our thinking, and bred a kind of pseudo-experience.

Were it not for the attempt to carry "spiritual law" into the "natural world" perceptions would never arise. If we remained at the intuitional level we should never encounter sense-phenomena.

It is common to regard perceptions, sensations and concepts as built one after another on the basis of material states; instead of that we must synthesise matter with perceptions, perceptions with sensations, sensations with conceptions, and bring back conceptions to intuition.

It used to be supposed that matter was the source of illusion and evil. It was an advance in subtilty and insight to exculpate matter and to suppose that the senses were the source of illusion; but the truth is that it is illusion (abstract concepts) that is the source of the senses, which in themselves are comparatively innocent. The source of illusion is not to be found in anything external but in the separation of the individual from the spiritual whole. The distinction between illusion and reality is made, not by the intuitive mind, but by the illusory consciousness itself.

The transitoriness of the world is implied in the very nature of the senses themselves. What the senses seem to gain they always lose again.

It is a great mistake to aver that the natural sciences can give us the overlordship of nature, i.e. dominion over the senses. Natural science is always on the way to the false infinite. No sooner has it established an equilibrium between man and the world than it is immediately upset, and science goes on with its never-ending labour of trying to establish equilibrium.

Science gives increase of complexity without giving us a corresponding unity. It never really solves a problem. The solution of one problem is simply the opening up of another. Science increases the confusion of the ordinary point of view. It is inertia, not activity.

The "external" world arises only by the veiling or minishing of truth. Its origination is due to ignorance. As against the customary view which places the world and

the self in opposition, acting and reacting upon one another, it is necessary to recognise that the world is a part of the self. The presence of the world is a proof of the fact that the self does not know itself. A world and a self in opposition to each other are each not-self and ought both to be integrated into the unity of the true self.

Idealism, in seeking to give a foundation to natural science, and in admitting the rationality of phenomena, has cut off its own feet. The natural sciences get the whole advantage on this view. The rational categories are phenomenalised, not phenomena rationalised. All independent philosophy disappears ; the history of culture for the last hundred years sufficiently proves this. Even when the assumptions of the Physical sciences are qualified by the assumptions of the Biological sciences, things are not improved, since it is not shown how the former have to be altered in order to square with the postulates of Biology.

There is no life without consciousness, and in so far as biology ignores this fundamental truth it falls to the ground. Biology is no account of the real. It gives no clue to the meaning of life. It is simply a construction of the human mind.

The dualism between perception and thought can never be resolved by thought itself. The antinomy cannot be dissolved by reflection. The more we think discursively, the more the dualism is intensified. The further also that the natural scientist carries his work, the wider becomes the cleavage. The only way out of the difficulty is frankly to surrender the modes of perception and thought which lead to this dualism. The Truth is neither sense nor thought, neither percept nor concept, nor a combination or involution of the two. Perception and abstract thought are negative, marking the absence of Truth. Realistic science is as far from the Truth as abstract philosophy. The Truth is neither thing nor relation ; it is not a marriage of matter with the forms of thought. This analytic procedure must be given up.

So far from assuming with Bergson the existence of the world of images we must trace the genesis of it. It has its origin in the same illusion that leads to conceptual thinking. Things engender thoughts and thoughts engender things. Bergson protests against the reducing of things to thoughts. But if the world of conceptual thought is shown to be a fiction, the world of things no less must be held to be a fiction. The pseudo-world of things and the pseudo-world of concepts stand or fall together. The criticism of abstract concepts must be accompanied by a criticism of sense-experience. Both equally come under condemnation. Intuition takes the place not only of concepts but also of percepts.

The success of the natural sciences in practical life is illusory. The natural sciences make use of abstract logic which works upon a given material, and educes external proofs of facts already known without proof; but makes no discoveries. Intuition, on the other hand, is creative, does make discoveries and is much more needful in practical life. Materialising thought is a hindrance to real activity. Intuition involves the displacement of the natural sciences.

Trying to Rationalise the Irrational.

Natural phenomena are erroneously legitimised by the natural sciences after the same manner in which the Homeric gods were defended and rehabilitated by the later allegorising Greek philosophers, and as the gods of the modern Hindu pantheon are justified by Indian Philosophers. It came to be seen that these gods were inadequate to any true idea of deity, and if they had been left in their naked barbarity and crudeness their repulsiveness would have barred the way to their general acceptance, and would have ultimately led to their being discarded altogether. Instead of that, a moral meaning

was given to the stories about the gods. The gods were held as symbols of some kind of truth or being, which however was totally separate and separable from the symbols arbitrarily affixed to it. But the human mind confused the symbol with its meaning, and gave to the material or imaginative representation all the weight of the truth to which it was temporarily attached. Thus the power and significance of the gods were enhanced instead of being depreciated by these processes of reasoning.

Furthermore, just as reason extenuated the shortcomings of the gods and "whitewashed" them, so the processes of Art were brought in to beautify their forms—to transform a shapeless block of wood, the primitive object of worship, into a graceful Hermes, and to turn a hideous idol into a magnificent statue. Thus Art corrupted religion, and was made the servant of superstition. The fine statue of a god was a refinement of nature but a degradation of Deity. The beauty in the idolatrous object had nothing to do with the material; it was merely reflected on the material by the mind of the artist; but it was naturally closely identified with the material. The common mind did not distinguish them. Thus idolatry, by being refined, only gained in power and attractiveness, and deepened the prevailing depravity and superstition. Illusion captivated the idol-worshipper. The beauty given to the idol was made to cover the grossness of the material facts—first to throw a veil over the immoralities of the historical or fabled figures, and then to stamp them with approval.

Grossness by being refined does not elevate but degrade. To idealise or rationalise the material is inevitably to materialise and therefore to degrade the ideal. To idealise matter is to give it a stability which does not belong to it. If nature be humanised, man must be naturalised, or brutalised.

Something similar happens when phenomena or groups of phenomena are made expressions of the laws of reason. Reason is not there, to begin with, and does not belong to

the phenomena any more than morality belongs to the old Greek gods. The inevitable result of applying law to phenomena was to degrade the notion of law. Instead of being a self-determining law it became mechanical; instead of being correlated with the good of humanity it was made totally indifferent to it (as in eighteenth-century political economy). Instead of expressing divine purpose it was turned into a power opposed to God. Law was turned against Love. Or Love itself was conceived as a form of natural law. In such a conception, as permeates H. Drummond's book, "Natural Law in the Spiritual World," we see the depreciation of both law and spirit, which comes from figuring the workings of the spiritual realm as in accordance with natural law. The formula "Natural Law in the Spiritual World" was invented in order to correct the natural impression bred by the extensive progress of the natural sciences in the nineteenth century, that law existed only in nature but not in the spiritual world. But when law was seen really to exist in the spiritual world it naturally carried with it the associations of the empirical sciences. There was illegitimate intrusion of the naturalistic point of view. Law, and not indetermination, had always existed in the spiritual realm. It is misleading to attach the epithet "natural" to law. We do not carry law from nature into spirit, but reversely, from spirit into nature; or rather, the laws observed in nature are only reflections, or shadows, of laws in the spiritual world. It is spirit that gives the clue to the understanding of natural processes, and not natural processes that give the clue to the understanding of spiritual process. Drummond's manner of approaching the subject misled him into interpreting the spiritual world too much according to natural analogies, and ignoring the priority of spiritual law. Thus his book teems with illustrations of the evil effects of parasitism, and of the various forms of degeneracy, which certainly serve to illustrate the law of retribution in human society. But when he

comes to treat of such spiritual facts as repentance, moral recovery, resurrection from the dead, he finds that here nature speaks with very uncertain voice and lends but a poor support to spiritual intuitions. The truth is that the so-called *Natural* Laws in the Spiritual World are contingent, and only make themselves manifest when the pure spiritual, i.e. non-natural law, is eclipsed. Retribution in nature is not a property of natural things, but was carried into them by the human conscience. Thus the phrase " Natural Law in the Spiritual World " is part error and part truth ; the error attaching to the word " Natural," and the truth to the term " Law ". We have here, to use a Bergsonian phrase, an illegitimate blending of intuition with abstraction. We cannot get a proper intuition of law unless it is purified from its associations with nature.

CHAPTER IX.

MIND AND BODY.

The Dualism of Brain and Mind not to be overcome by analysis—The Brain not an Instrument of Action—The Supposed Effects of Brain Lesion upon Consciousness—The Relation of Material Movement to Sensation—The Relation of the External World to the System of Conscious Perceptions—The Influence of the Natural Sciences upon Psychology—The Relation of Bodily Organs to Mind.

The Dualism of Brain and Mind not to be Overcome by Analysis.

The various forms of dualism, previously treated, come to evolve by logical necessity into that crux of all dualism, the separation of body from soul, of brain from mind. Bergson's general way of solving the difficulty is to accept the ordinary dualism and to try to mediate between the two terms. As he remarks ("Matter and Memory," p. 297): "The difficulties of ordinary dualism come, not from the distinction of the two terms, but from the impossibility of seeing how the one is grafted upon the other". The difference between mind and matter is that the tension or duration of mind is much greater than that of matter. Thus, though at their extreme limits they are two separate entities, he seeks to establish a continuity between them in the hypothetical psychic state, pure perception. He rejects the crude materialistic and parallelistic theories, viz. that thought is a function of the brain, or that brain changes are simply a transcription of mental changes. Conscious-

ness vastly overflows the body and conserves within itself all its past feelings and thoughts and impressions independently of the body. The body only *conditions* the mind, confines its action within a certain groove, and serves as a channel of communication between the mind and the outward world. The body only restricts or conditions that part of the life of the soul which deals with physical action, leaving the other activities of the soul untrammelled. The lesions of the brain, which were supposed to destroy the elements of consciousness associated with the parts of the brain affected, do in effect only destroy the possibility of action of these conscious elements. Injuries to the body or brain-lesions disturb, not the psychic existence of conscious states (for they all live on in the unconscious) but only their outward manifestation.

Brain changes symbolise in terms of spatial movements what goes on in consciousness. The relation of brain changes to mind is similar to the relation of the gestures of an actor to the character which he represents. Brain changes mimic on the material plane what goes on in the sphere of mind. It is the relation of the mere sound of a word to its import, or of the dumb show of a deaf-mute to his thought.

As the mere sight of the hand- and feet- and head-movements of the actors on the stage is not the key to the understanding of the play that they are representing, so brain changes are not the key to the contents or processes of mind. On the contrary, the key to all brain changes, as to all material changes, lies in mind.

All thought, feeling and perception have a *reference* to action, though they may never be actualised. Brain changes are the virtual or nascent actions implied in all consciousness. They are the colourless motor-images or sketches of the full concrete coloured picture or feeling of the mind.

Bergson rightly corrects materialistic and parallelistic doctrines in showing the independence and unconditional

nature of mind, but he leaves the dualism between brain and mind still standing, and thus makes it impossible for him to solve his problem. He allows that the brain changes are material changes in the ordinary sense of that term, whereas it is clear that these brain changes are but abstractions of mental activities. These abstractions are from the point of view of concrete mind unnecessary and illegitimate; and by the road of analysis, combined with the most ingenious speculation, it would be impossible to reach a solution of the mind-brain antinomy. It is analysis that has made the dualism of mind and brain, and the progress of analysis serves only to intensify the dualism. Even supposing that one could by ingenious mechanical apparatus succeed in perceiving and recording brain changes, and tracing the connection between them and our mental states, the gulf between brain and mind would not be bridged. The point where mind intersects or acts on matter would not be found. The problem can only be solved by withdrawing abstractions, abolishing dualism and by keeping the path of intuition.

The value of Bergson's polemic in defence of a consciousness independent of the brain is greatly diminished by the fact that this consciousness which he asserts to overflow the brain really seems to be a kind of unconsciousness. As a direct consequence of this way of looking at the problem the brain would appear to be the only point where consciousness is manifested. The consciousness which transcends brain is really a kind of dream-life, its freedom the licence of a chaos of images. Consciousness when it functions at all can only do so through the brain. Thus material brain and conscious mind seem to interchange their attributes. Mind is made "unconscious," and brain is endowed with quasi-consciousness. The brain is the organ of choice of images. But for the brain images would be unconscious.

Bergson says that it is the office of the brain to shut out from consciousness all that is of no practical interest. This

would be to make the brain (not merely an organ of consciousness, but also) a check or hindrance to it the function of which would be to suppress images, or rather to throw back images into the unconscious whence they first issued. This latter would be a defensible proposition if strictly maintained, but Bergson does not abide by it. For him the brain has more than this negative function ; it is positively an organ of consciousness. Apart from brain there would, indeed, be mind, but only unconscious mind. We must therefore considerably discount the value of Bergson's defence of mind. The thorough-going idealist, reading Bergson's contributions to the defence of idealism, is apt to exclaim : " Timeo Danaos et dona ferentes ".

Bergson grants independence to the mind, but he no less grants independence to the brain. He unconsciously hypostatises the brain, whereas, according to his own showing, the brain and its movements are symbolic, that is to say, are abstractions, the due result of intellectual analysis. Such terms as " symbol," " organ," " instrument," applied to the brain are all more or less metaphorical and misleading. We cannot appreciate, metaphysically, the part played by the brain so long as we keep up the dualistic point of view. When we call brain an organ or an instrument of mind, or as Bergson calls it, an organ of choice, we land ourselves in the absurdity of making the whole, that is, mind, dependent on something that falls *within* it. The difficulties of the mind-brain problem are the consequence, not so much of theories of materialism, as of the ingrained and customary modes of thinking and cannot be conjured away by scientific reflection which goes upon dualistic postulates. Here may be applied to the solution of the problem a principle which Bergson himself has signalised with his approval : the way to answer certain questions is to show that they were based on a misunderstanding and ought never to have been put. When we return to the unitary standpoint the problem as such disappears.

Bergson never reaches the standpoint of an absolutely independent mind ; for him mind always stands in contrast with something non-mental, i.e. material. He does not see that matter is a blank—a sign of ignorance. The practical import of his teaching is that mind is dependent on material structure, and that the processes of consciousness wait upon the changes in the configuration of our brains. He shows that, in spite of brain-lesions, consciousness preserves its potentialities but not its actuality or its energy ; but this is quite compatible with the view that consciousness is developed out of changes in matter. For him a brain lesion appears to be an obstacle not to be eluded. In order to prove the autonomy of mind it would be necessary to show (1) not merely that mind can restore the brain in case of a lesion, but also (2) that mind energises independently even of a healthy brain.

Bergson makes consciousness a mere potentiality, not seeing that there can be no *dunamis* without an *energeia*. Every assumption can be traced back to an affirmation and every possibility to an actuality. In short, there is a concrete unity of mind which sublates the ordinary dualism of brain and consciousness.

The Brain not an Instrument of Action.

Bergson tries to avoid materialism and to delimit the spheres of body and mind by saying that the body is an instrument not of thought but of action. One could describe his view in terms of Monadology by saying that pure perception (where mind and body meet) was the consciousness of a monad of the lowest grade, wholly merged in its body, or not distinguishing itself from its body. Pure perception thus becomes indistinguishable from pure action, i.e. from the barest physical inter-relation of the monads. The body is an assemblage of monads, not itself conscious, but representing in various movements the effects of con-

sciousness on the lowest monads. Consciousness is outside the body, outside the brain also; even ordinary sense-perception is outside the body. The whole world of sense-perception exists prior to my body, or at least coincidently with my body, and so the body cannot be said to be the instrument of sense-perception. But my body has the faculty of symbolising in its own fashion the movements of other bodies. It does not give birth to perceptions, nor is it the instrument of the formation of perceptions, but concentrates in a point, or brings to a focus, a selection out of a number of scattered perceptions.

The body in its various attitudes is like the changing pictures on a screen; it cannot be the source of sense-perception any more than the screen can be the source of the pictures thrown on it. The body is thus the scene of the movements of various pictures of the world seen at a certain angle of vision. But what is it that brings together the pictures in a certain body? Obviously not the body itself. The body is otiose, the screen is a blank. The movement of the pictures comes not from the screen but from a power outside the screen. Following this analogy we cannot admit that the body is even an instrument of the lowest action. Consistency demands of us to deprive the body not merely of thought but also of action. The power of action which Bergson thus admits to the body really belongs to the representations of mind.

We cannot solve the dualism of body and mind by making a distinction between thought and action. Bergson sees perfectly that consciousness in every form must be pushed outside the body; and because he assumes that action is non-mental, he thinks that he can leave action to the body. But action is as much a function of consciousness as representation is, and it, too, must be pushed outside the body.

Bergson is still more palpably inconsistent in declaring that the rôle of the body is to *choose* the useful memory. This goes further than to attribute to the body "action". "Choice," even more explicitly than action, involves

thought, and to attribute choice to the body is practically to endow the body with consciousness. So far is it from being true that it is the rôle of the body to choose the useful memories, that the reverse is the case : it is the rôle of consciousness to choose the useful memories, and it is the rôle of the useful memories to choose their body or to embody themselves.

Bergson assumes that external things first act on the body and that then perception takes cognisance of them. But, why ? Is there any reason why consciousness should not select its own connections with other bodies ? All things are connected virtually with the body and, according to Bergson, perception marks the actual bodies that influence our body.

But there must be a prior choice by the mind of the external things that influence our body. The body therefore cannot " choose," nor be an instrument of choice. Bergson assumes that for the mind there is a choice open only of memory-images but not of external images. He declares that with regard to external images nature lays down an inflexible rule, whilst with regard to memory-images there is room for fantasy. This distinction cannot hold. There is a choice open to the mind also of external images. The body is not determined by its environment. Environment as well as memory is determined by the ego itself. Bergson varies his position by saying that the selection of memory-images is much less rigorously determined than in the case of perceptions. But how in this latter case can we speak of " selection " at all if " nature lays down an inflexible rule " ?

The Supposed Effects of Brain Lesion upon Consciousness.

Bergson avers that in the case of cerebral lesions, accompanied by loss or defect of speech, the word-memories still

remain intact. But what is the value of this quasi-existence of the memory-images, seeing that they are condemned to inaction? For we must remember that for Bergson action is the prerogative of the body; memory-images can only act by materialising themselves. Bergson does not show how the word-images, when once the way to actualisation is interrupted by cerebral lesion, can either clear away the obstacle to action or realise themselves in some other way. Metaphysically as well as practically the word-images are dead when the brain lesion occurs. Seeing that he makes brain necessary to consciousness as an instrument of action, and allows to consciousness no other means of action, he does not escape the difficulties of materialism.

There is a fallacy in Bergson's mode of arguing here. He assumes that because consciousness may be independent of a particular brain lesion, therefore it is independent of the whole brain or of the whole nervous system. For all that he shows, the consciousness whose action is affected by a particular brain lesion might maintain itself in being by the action of some other part of the body and thus be dependent on the body. He does not clear up the fundamental metaphysical question of the relation, supposed or real, of consciousness to the body as a whole.

The view that word-images abide in spite of the lesion of the speech centres of the brain is a speculative hypothesis which, whilst it attempts to palliate, does not deliver us from materialism.

There arises here a question which might savour of logic-chopping but which it is quite justifiable to ask: How, on Bergson's presuppositions, can brain lesions arise? Bergson takes a very realistic view of images; he assumes that they are real and permanent, not phenomenal, not made by sense-perception. Now the brain is an image also—an external image, not a mental image, but none the less an image. It therefore also must be permanent and real. How can these images, internal or external, suffer decay, destroy themselves, or destroy other images? How

can the body make a section of its own nerves, blow out its own brains, or be evilly affected by another body? This is explicable enough if the body is held as phenomenal but impossible on the view that images are real and permanent. We must be absolutely consistent in our treatment of images. If the image we call our body can be destroyed, then, in principle, any image may be destroyed —and the assumption of Bergson that all images may be resuscitated, because they live on in the unconscious, must be given up. On the other hand, if internal images survive, it is inexplicable that the body should not survive too. If we grant permanence to the memory-images, a fortiori we must grant it to the solid images whence, according to Bergson, they were drawn.

The dissolution of material images, the phenomena of disease and death, are hard to account for on Bergsonian presuppositions. The problem here is analogous to the problem of forgetfulness: if we assume the permanent survival of representations, how are we to account for their lapse from memory? If we assume the permanence of material images, how to explain the fact that bodies can die or be destroyed? Bergson accounts for forgetfulness by the intervention of the material brain, which ("Matter and Memory," p. 232) "contributes to the recall of the useful recollection, but still more to the provisional banishment of all the others". "Materiality produces oblivion." But what is it that produces the dissolution of materiality?

It is worthy of remark that Bergson goes to the science of Pathology for the facts on which he builds his theory that mind is independent of brain. Pathology studies certain abnormal phenomena such as tumours, cancers and brain lesions, which are unaccounted for as physiological processes, without however raising the metaphysical question: whence arise these untoward phenomena? Pathology studies the evolution of a malignant growth or the processes of decay without enquiring into their

absolute cause. Disease and death, physical and mental infirmity, the manifestations of disorder in the natural realm, phenomena not amenable to law are assumed as natural by the pathologist, but constitute for the metaphysician a problem. Bergson, *qua* metaphysician, was not entitled to assume the postulates of pathology without question. It sounds paradoxical that the phenomena of pathology should be accepted as natural, and at the same time should be made to tell in favour of the view that memory is absolutely independent of the brain. Pathological phenomena, so long as they persist, will always bear evidence the other way. So long as brain disease and other malignant bodily conditions are not eliminated by being countered by higher forces, they will testify to the infirmity of mind and its subjection to the unknown forces of nature.

The real proof that mind is independent of the brain comes from metaphysical intuition. Bergson shows that the mind by an effort of mental concentration can recover itself from entanglement in the superficial states which cover the real ego. The brain is brought into play by the life of material action. Intuition suspends attention to outer "facts" and thus dispenses with the brain. The immediate deliverance of consciousness leads us to deny that brain is required for any mental process whatever.

Sensation, too, is independent of brain; it involves a concentration of mind, a recovery from the disintegration of movement. It is generally supposed that we can alter our thoughts but not our sensations. But our sensations have their origin in thoughts, and if we can alter our thoughts we can alter our sensations. Scientific materialism, on the assumption that sensation is bound to a nervous system, takes the line that we can modify our sensations only by the round-about way of first altering our external world. This is an error due to the assumption that sensation is dependent on a nervous system. Scientific analysis tends to materialise sensations and to imbue them with

the unalterable necessity of natural law, and thus to engender the falsity that sensations themselves are contingent on bodily structure. In truth, we can transform our sensations directly by suspending analysis, and thus we can alter our so-called external world without the necessity of material movement. Thus sensation is made free from the external world. A return to immediate consciousness restores the continuity of sensation which is broken by the necessity of action in the material world.

The Relation of Material Movement to Sensation.

The usual quasi-materialistic view is that material movement between bodies necessarily precedes sensation, that, e.g. when we determine to move our hand we become aware of the movement of the hand only after it has taken place. The movement of the hand is an unconscious material process upon which sensation supervenes. We act and then become conscious of our action. Thus sensation is dependent on the automatic action of our own bodies or of the images of the surrounding world. Now we have to point out that this movement which is supposed to be without sensation really presupposes sensation. It is not a material process but a mental process. Its supposed materiality is due to the fact that it is not in the focus of attention. These mechanical processes are not actual events but abstract, and due to a perverted mode of looking at our own experience. It is the bias of science that renders them unconscious. All mechanism is preceded by an image and not the image by mechanism. This automatic action is simply our own action not reflected upon; it is a relapse to habitual action or to the mere association of ideas. We are like men who, beholding their natural face in the mirror, go away and forget what manner of men they are. This supposed automatic movement is our conscious deed, and no action can take place without

consciousness. It is a fatal error of Bergson to deprive consciousness of action and to relegate action to material images. Brain action and the movements of the nervous system are only dispersed forms of conscious action. The dualism between physiology and psychology is unwarranted.

According to the principle of Duration consciousness never repeats itself. The presuppositions of science which falsify external nature in assuming natural laws also falsify human nature in assuming that we form fixed habits, and that our conscious action is under-propped by a congeries of automatic actions. Our fixed habits determine us to take the way of science, and again the results of science tend to confirm fixed habits and to mechanise consciousness. Intuition always resists the fixation of habits. This does not mean relapse into chance, for chance is only a degraded form of habit, involving the repetition of the same thing, not the evolution of novelty. Intuition means free conscious action modifying habit or independent of habit. When it is asserted that we must act before we become aware of action, this gives rise to the supposition that the first, the act, is material or relatively unconscious, whilst the second, the awareness of the act, is fully conscious.

In truth, such an act as that of an artist painting a fine picture is a higher form of consciousness than that awareness of the act, which is simply the scientific analysis of it —an interpretation of it according to already known laws, or already formed habits. Art is superior to science: science waits on art and is parasitic on it, and it is wrong to hold that art is relatively unconscious and science relatively conscious.

That science is a lower form of consciousness comes out in the very complaints made by scientists themselves of the poverty and limitation of the senses. They do not observe that science encourages this poverty and limitation of the senses by their habit of filling up the gaps in the deliverances of the senses by the use of abstract conceptions or physical instruments. Thus the chemist never sees

how oxygen and hydrogen combine to form water but contents himself with expressing the phenomenon by a mathematical formula in terms of atoms or molecules. The physicist is not aware of waves of light beyond those associated with the colour but contents himself with expressing the invisible waves by a number. What is called a defect of the senses is really a deficiency of Intuition. It is when intuition fails that the separate senses arise. Natural science encourages the dulling of the senses, the practice of art renders the senses more acute, i.e. corrects and develops them by means of intuition. The more that science encourages abstract concepts and composite images, the more defective the senses will become. The very existence and life of science depends on the contrast between disintegrated sensations and abstract concepts. Every advance in science involves the discovery of new lacunæ. Science can cure its defects only by destroying itself. What is wanted is not an increase and extension of sense observations but more intuition, which destroys the dualism of concept and sensation. Science perverts the true nature of sensation. What it calls sensation is only such as conforms to the scientific categories—not a concrete fact of experience but an abstract particular.

Chemistry and physiology are interruptions and hindrances of the original creative mental process and the movements of brain or nervous system, which physiology points out as conditioning mental processes, are but arbitrary and one-sided forms of conscious life.

Bergson assumes that the only reply of the mind to the stimulus from the outward world is the movement prolonging material action. According to him perception is virtual action. But there is another kind of reply to the so-called stimulus open to the mind. It may suspend all reaction to the stimulus and thus abolish both perception and stimulus. It is only in proportion as it is answered that the stimulus acquires power. The supposition on Bergson's principle is that if the stimulus were not answered,

the organism would be dead. But it would be dead only to that particular stimulus. This other kind of reply is direct action (intuition), not reaction or indirect action (perception). The mind can dispense with action through an intermediary. We have the possibility of an act of the mind which might be called, not virtual action, but suspended action, or reversed action. The mistake of Bergson consists in supposing that the mind is always pushed on by material action, and always looks toward a material result. The mind takes this attitude only in scientific perception and in the conceptions subsidiary thereto; but not in artistic, moral, or intuitive activities. In metaphysics the mind seeks to substitute its own real action for material action, or so-called involuntary action.

There is no such reality as involuntary action. Matter cannot act, and every action involves will. And involuntary action involves a contradiction in terms. Every action involves consciousness. Involuntary action is only a conceptual limit to which we may approximate but which we can never reach. Mind cannot terminate its activity in an involuntary action, which is just that from which it must extricate itself.

The Relation of the External World to the System of Conscious Perceptions.

In the opening pages of "Matter and Memory" Bergson tries to introduce clearness into the discussion of the mind-brain problem in his usual fashion by making a dualism between images as they belong to the world of science, and images as they belong to the field of consciousness. The problem, he writes (p. 12), "might be stated as follows: Here is a system of images which I term my perception of the universe, and which may be entirely altered by a very slight change in a certain privileged image,—*my body*. This image occupies the centre; by it all the others are

conditioned ; at each of its movements everything changes, as though by a turn of a kaleidoscope. Here, on the other hand, are the same images, but referred each one to itself : influencing each other no doubt, but in such a manner that the effect is always in proportion to the cause : this is what I term *the universe. . . . How is it that the same images can belong at the same time to two different systems, the one in which each image varies for itself, and in the well-defined measure that it is patient of the real action of surrounding images, the other in which all change for a single image, and in the varying measure that they reflect the eventual action of this privileged image ?* "

Bergson thus states the problem in terms that are insoluble, and having thus posited his dualism he never succeeds in making it rational. " No philosophical doctrine," he writes, " denies that the same images can enter at the same time into two distinct systems, one belonging to science, wherein each image related only to itself, possesses an absolute value ; and the other the world of consciousness wherein all the images depend on a central image, our body, the variations of which they follow." Ordinary thinking accepts the prima facie distinction above referred to but every philosophy must call it in question, and particularly the dogmatic assertion, several times repeated, that " each image related only to itself possesses an absolute value ". The world of consciousness is the whole out of which the world of science has been abstracted. The hardening and hypostatising of abstractions leads to the false supposition that the world of science is independent of consciousness and possesses absolute value.

Nothing could be more false than the statement (p. 15) : " Neither of the two systems of images is implied in the other, and each of them is sufficient to itself." Consciousness is most evidently implied in the world of science. Again, we cannot understand the statement (p. 15) : " The first system alone " (experienced images) " is given to present experience : but we *believe* in the second " (the

world of images) " if only because we affirm the continuity of past, present, and future ". Surely it is consciousness alone that can give continuity to anything. And does not Bergson himself labour assiduously in the succeeding pages of his work to prove that it is meaningless to apply the terms past, present and future to the abstract world of images in which science lives and moves. This world, according to his own subsequent reasoning, is static and timeless without process or duration.

As we have already proved, the time element cannot be excluded from science. But what we desire to point out is that Bergson uses here language which presumes that consciousness is implied in the world of scientific images.

These two sets of images are not so disparate as they appear to be. We can easily show how they approach one another and tend to coincide. The world of science—which, it may be pointed out, includes the bodies of our fellow-men and also partially our own bodies—is only *presumed* for the sake of convenience and saving labour to act under invariable laws,—the being of these images is not exhausted in laws—they have a being for themselves. Indeed, how could they be supposed to act and interact unless they had being for themselves ? They must be souls or psychical states of a soul. This brings us back to the set of images which vary with respect to one image, our body. Again, this second set of images having for its centre a body which is indetermined and makes other images subservient to it is to a certain extent necessitated, and in the formation and fixation of habits may show a form of law, hardly distinguishable from the laws of nature. In fact the laws of nature can be understood only as habits, or ways of experiencing, more fixed and automatic than our ordinary habits. Thus the second system of images is seen to assimilate itself in character to the first.

The first system of images is taken as displaying the type of action according to law, whilst the second system is supposed to be marked by indetermination. But, when

fairly and impartially examined, the first system is found to be marked by deviations from law, irregular and incalculable, and thus to approach in quality to the unpredictable impulses of our body and of the system of images dependent on it. In fact the first set of images does not offer an absolute type of law at all. On the contrary there is less of law in this group of images than in the concrete experienced world of images. The law of external images is of the same type as those lower forms of law found in mind, like the law of the association of ideas: and on the other hand, the examination of the most loose and topsy-turvy associations of ideas, after the manner of Freud and the psycho-analysts, furnishes a type of law closely similar to the automatism of the laws of nature. Here again the two systems of images tend to coincide.

We must object to the ambiguous use of the term " body " as the centre of the world of experienced images. The associations of the term are materialistic: but " body " here is evidently not a physiological but a quasi-psychical, concept. The centre of consciousness may be provisionally expressed as ego, soul or spirit, but cannot properly be expressed by a quasi-materialistic term such as " body ". Body must be interpreted by soul and not soul by body. Again, Bergson assumes that because our " body " with its experiences is not immersed in the first system of images, it is therefore indeterminate, a kingdom by itself: and thus all human bodies would be a series of dissociated units. He assumes the existence of a unitary and orderly external world, but by implication denies, or practically ignores, the existence of an orderly internal or psychical world. In view of the existence of this psychical world, which is more truly matter of experience than the so-called external world, it is a complete mistake to speak of our " body " (properly speaking, soul) as indeterminate. Our " body " can only fall out of relation to the external world by being brought into connection with the psychical world. The freedom of the individual can lie, not in his indeter-

mination, in his becoming independent of the world of nature, but in his being integrated into the larger world of consciousness. Bergson assumes that the second system of images is ultimate for each "body," and that consequently there are as many systems of conscious and variable images as there are "bodies". Yet this is a conclusion which he never faces: for he constantly assumes that there is *but one* system of variable images in contrast to the system of invariable images. He thus postulates an absolute experience. It is this absolute experience, and not the world of nature, which he should have taken as his norm. External nature (which is not fixed and unchanging) and human consciousness (which is not capricious and solipsistic) are but abstractions from this ultimate spiritual system.

The Influence of the Natural Sciences upon Psychology.

The solution of the mind-brain antinomy can be best found, not by accepting the dualism as it stands and then trying to mediate between the two terms, but by showing how the dualism naturally arises in the human mind. The more abstract of the natural sciences have appeared and developed in history before the more concrete. Thus, mathematics appeared before physics, and physics before chemistry. Mathematics thus tends to exercise an undue and improper influence upon questions of physics, and in the extreme case the mathematician strives to reduce physics to the level of a branch of his own science. Similar is the treatment that the physicist gives to questions of organic or inorganic chemistry. Noticeable also is the tendency to explain biological facts in terms of chemical and physical processes. There has thus grown up a tendency to apply to the question-matter of each particular science more abstract categories than their nature demands.

This produces a thorough distortion of point of view: it is like trying to look at an object with the wrong end of the telescope. We must exactly reverse this procedure. Mathematics must be re-interpreted in the light of physics, physics in the light of chemistry, chemistry in the light of biology, and biology in the light of psychology.

The error of abstraction produces the result that mathematical laws, after imposing their conditions on all the other sciences, introduce mechanism and materialism into the realm of psychology, and gives rise to the assumption that the human mind is a portion of consciousness circumscribed by, or endowed with, a body. This latter is the postulate of the science of psychology; it is, indeed, tacitly assumed in all the sciences, but in psychology it comes to full consciousness, and that too in all its difficulty. As this postulate cannot be metaphysically justified, all the results of psychology—and it may be added of the other sciences—are suspended in the air. Psychology gives as distorted an idea of the soul as the natural sciences give of the external world. Introspection, which is the peculiar method of psychology, is on all fours with the "extraspection" of the sciences, and as we have denied the validity of external perception, we are bound also to deny the validity of internal perception. For the latter exists only in relation to the former. Introspection is an observing and classifying of the effects on the human soul of external perception; and on the other hand, it always tends to mould and control external perception. The two mutually condition one another. Modern experimental psychology has accelerated the materialistic tendency to subordinate introspection to external perception, and to classify the phenomena of the soul in the same way as the phenomena of the external world. Psychology has taken over without question the physiological idea of a human body: but, in order that it may start with a correct notion of the human soul, it must on the one hand take away the materialism of the body, which is caused by the abstractness of the

physiological viewpoint; and on the other hand restore to the body the reality of a concept or constituent of mind. Psychology, by accepting the brain-mind dualism, is making the human mind dependent on one of its own products. We must restore the independence of mind by revising the idea of a material body.

What is the relation between cerebral process and mental process? In order to explicate the cerebral process, recourse has been had, first to physical laws, then to chemical laws, and ultimately to physiological laws. We contend that if you abstract the cerebral process from the movement of the soul you vitiate at the very outset all enquiry as to what the cerebral process may be; you leave behind you the key to your problem. The cerebral process abstracted from consciousness is not a real process at all, but a merely theoretical process. If the cerebral process is studied apart, it is *ipso facto* deprived of life and consciousness, it is considered as a lifeless process, and as such it is studied by chemists and physiologists,—and then it can never be made intelligible how this cerebral process could be found in a living body or in a conscious mind. That there are independent lifeless or mindless processes is what we have already shown to be an untenable proposition. The cerebral process is the outcome of scientific analysis, and the fallacy consists in assuming the product of intellectual process to be a reality. When, therefore, the puzzling question is raised, how a mental process can be dependent on a cerebral process, the answer is: a cerebral process is itself a mental process, and we cannot regard the mind as dependent on any of its own processes.

Scientific cognition is itself a materialising process. In isolating the elements of conscious life, it has made the passage from psychology to physiology; it has started a physiological process assumed to be unconscious. Science makes the leap from the conscious to the unconscious, without knowing it; and when it seeks to return from the unconscious to the conscious, cannot find its way. Natural

science, in the form of mathematics, begins at the furthest distance from the concrete, and after passing through the various stages of physics, chemistry and biology comes, in physiology, to the cerebral process, the terminus *ad quem* of its investigation. There it is brought to a halt at the confines of consciousness, and vainly endeavours to cross the boundary line. By no advance in physiology could you build a bridge to the sphere of mind. It can find the way back to consciousness only by reversing its postulates. The science of physiology is dependent on certain unsuspected psychological assumptions, and physiological process is but a disfigurement of psychical process.

It is admitted by most scientists that the working of the brain cannot be explained by physical laws, or even by chemical laws. It is still supposed, however, that physiological concepts transcending chemistry might still be adequate to the matter in hand. Our affirmation simply is that the movements of the brain cannot be explained apart from psychological categories; that it is first and foremost a psychical process with psychical antecedents, and that to regard it as a physiological process having material antecedents is to render the problem insoluble.

The cerebral process only appears as such because mind has been subtracted from it. The only solution of the antinomy is to restore to mind its rights, and to renew the connection of cerebral process with it. Furthermore, if cerebral process requires psychic process for its explanation, this is no less true of all the movements of the human body and ultimately of all natural processes.

It is useless to puzzle over the question how it is that for the physiologist who traces the physical and chemical processes involved in an excitation carried to the brain, or in an impulse carried along the efferent nerves, there is no awareness of the sensations or conscious element supposed to accompany such excitations or impulses. It is just the very postulate of physiology to abstract from conscious processes. The two points of view, that of the psychologist

and of the physiologist, are incompatible. Again, it is equally useless to put or answer the question, how what appears to the physiologist as extended states (brain or body) appears to the psychologist as unextended mental states. Put in this fashion, the question is insoluble. There are no realities, such as those named, extended or material states. The antinomy can be solved only by refuting materialism. The usual way of putting these questions assumes that both points of view, the physiological and the psychological, are equally legitimate. This is what we show to be impossible, the alchemy of thought cannot melt them together. Failing the attempt to conciliate them, the only alternative is that the one should either oust or swallow up the other. To make physiology supreme is a manifest absurdity. The way clear out of the difficulty is to bring bodily movement and the science of physiology to its psychical roots, and thus supersede the physiological point of view altogether.

Psychology, properly speaking, ought to be independent of physiology, but we find it as a matter of fact enslaved to it. There is a tendency to make psychology merely an extension or continuation of physiology. The sciences all carry out the postulate that our sensation can be regarded as a thing or series of things. Now, as one department of psychology makes it its business to investigate those aspects of our sensation-life which are left over by the natural sciences, this naturally increases the tendency to regard conscious states as things. The supposition will then inevitably arise that consciousness depends on an unconscious process. Even provisionally to assume the physiological point of view is dangerous.

It is fallacious to suppose that the natural sciences rise one above the other—each introducing a novel element not found in the previous—until we reach the science of consciousness, psychology. It thus appears as if consciousness was contingent upon things. In point of fact the sciences, so far from bringing anything new into experience,

rather take something from it. Psychology abstracts less from experience than any of the other sciences. The less abstract sciences abolish the more abstract, and, so far from building on the foundation of the more abstract sciences, must clear them away. Psychology must dispense with physiological categories. It is fallacious to define sensation as that which marks the sensitiveness of an organism to various aspects of its environment. When we speak of sensation the dualism of body and environment is transcended. It is confusion of thought to speak of mind as being in a material environment at all. Yet this category of organism and environment is constantly being illegitimately introduced from biology into psychology.

It is averred that when the nervous system perishes, then mind vanishes. But this prima facie impression is based on an assumption which we shall thus state: the law of consciousness is to direct itself towards material action; or in other words, that the purpose of knowledge is to mould the body into actions suited to its supposed material environment. This was the very assumption made by Bergson when, in the beginning of " Matter and Memory " (p. 17), he challenged the postulate made in common by idealists and realists, that " perception has a wholly speculative interest, i.e. is pure knowledge ". His contention was that perception meant indeterminate or eventual action. But we find that as Bergson proceeds this hypothesis, first formulated for perception, is extended to every department of mind. What is the law of perception is made the law of consciousness entirely. Granted this enormous assumption, then it is inevitable that the annihilation of body means the annihilation of mind. If the sphere of manifestation of the mind is the world, then there is no mind where there is no bodily action. Our contention is that consciousness has been misread. The function of consciousness is neither to be the passive accompaniment of a body, nor to adapt the body to its environment or the environment to the body. Consciousness

transcends the category of organism and environment altogether. The fundamental law of consciousness is to control body and environment, to recover from material inaction, and to substitute mental activity for mechanical impulse. The difficulty of this problem is due to taking brain and body to be reality and not appearance. Brain and body are phenomenal and must disappear in order that mind may be revealed.

We have seen that Bergson insensibly allows his view of perception to determine his view of consciousness. The only legitimate course is to make concrete consciousness determinative of our view of perception. According to current psychology, perception is the consciousness accompanying the reaction of the body to the excitement of the object. It is as fixed and unchangeable as a hereditary instinct. Such a psychology, if it were accepted, would make a system of ethics impossible either to conceive or to practice. For ethics presupposes not only the alterability of perceptions, but also a law independent of the routine of perceptions. Ethics has been compelled to accept theories of the human mind made independently of it; and is thus made subservient to psychology. The reverse should be the case; ethics should make its own psychology. Naturalistic psychology is only the outcome of a defective ethic; there is nothing final or binding about its findings. A new ethic would establish a new mentality, thus destroying the old psychology and necessitating a new one.

According to Bergson, the object of perception is not pure disinterested knowledge but to supply material for science. Scientific perception is really a perversion of concrete perception. Perception cannot be divorced from its connection with pure cognition (metaphysics) or from its connection with right practice (ethics). Perception is not wholly immersed in materiality, it looks toward concrete consciousness. Defined from this point of view, it is the consciousness accompanying a partial suspension of

instinctive or automatic actions. This definition leaves room for the transformation of our ordinary material perceptions that is demanded by ethics and intuition. We have to correct the Bergsonian definition of perception as virtual action into action energised, i.e. action denuded of materiality and made conscious.

From the point of view of psychology we must dispense with the physiological concept of brain. Body as physiological is an abstraction of a psychical state. The dualism of concept and sensation must be disallowed in psychology, just as in science the dualism between matter and soul. The ordinary concept of the psyche is not concrete because the psyche is torn from its context in the one mind.

Psychology cannot stand as concrete knowledge. The sciences have no metaphysical basis but they have a psychological root, and when we have shown the invalidity of psychology we have shown the invalidity of the sciences. We invert the usual point of view that the natural sciences are independent of psychology. Psychology faces two ways. It looks to the other sciences, and there is a constant tendency to use the categories of mathematics, physics, chemistry, etc. in psychology. Hence comes the materialistic taint from which it must be thoroughly purged. On the other hand it looks to metaphysics. It has a tendency to return to the concrete, and when this is realised, psychology as such is transcended.

The problem of mind and body is entirely theoretical. It cannot be solved by experiment, by hypothesis or by speculation. The problem itself is artificial, due to perverted modes of thinking and wrong modes of acting. It can be solved only by the activity of intuition. None the less, by showing how the error and its ramifications arise, one may guide the mind in its effort to escape from this paralogism.

The mind must be granted an independent power apart from the body, and the body must be reduced to the level of appearance. Bergson's difficulties are due to his assump-

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tion that the body is not relative but absolute. He has correlated the body partly with the powers of mind, partly with its disabilities. But we must be consistent through and through. Body cannot be correlated with aught but the disabilities of mind. Matter can explain, not memory, but oblivion.

The Relation of Bodily Organs to Mind.

We are now put at the right point of view for clearing away some difficulties. If the destruction of the eye abolishes visual perception, does not this prove the dependence of mind upon body? This rather proves our point that material perception is accidental or contingent. The inability to see except through a material organ is an incapacity of certain individuals, but does not attach to mind itself.

It is only in so far as the mind gets away from material systems that it gains freedom. Consider Bergson's example of the destruction of sight by accident, as, e.g. by the severing of the optic nerve. The assumption is that consciousness depends on material structure, or a system of automatic actions. An accident only destroys the accidental life of man, the superficial life, the life that is organised to accommodate itself to nature and society. But the permanent powers inherent in consciousness are not destroyed. The real powers of the soul reveal themselves in setting aside external conditions. Misconception is due to the intrusion of material modes of perceiving into the inner domain of the soul. We cognise the life of the soul, not through material states, but in spite of them. All knowledge depends on the suspension of material action. The soul manifests itself, not by any positive relation to, or control of, material conditions, but by its displacement of them. What do the results of a surgical operation or of faulty manipulation upon the body prove? Simply

the externality and accidental nature of our perceptions. It proves the materialism in which we are sunk. It in no way proves that consciousness is dependent on matter, or semi-material things.

There are authentic records of cases of blind persons who could distinguish colours by touch and even by smell. (A convenient popular summary of such cases can be found in the Introduction to Ernest Bramah's "The Eyes of Max Carrodos," publ. Grant Richards, Ltd., pages 20, 21.) These instances prove that consciousness of colour is not confined to the use of the eye, and that sensations are not necessarily mediated by the channels usually associated with them.

Bergson himself in his book, "Creative Evolution," asserts that the eye is not an organism constructed out of its parts. It is created by an indivisible act; the parts are the outcome of analysis. If this is true, how can the body as a whole be said to be dependent on its parts, and how can the mind be dependent upon the body, which is the outcome of the analysis of mind? If the eye is not dependent on its parts, how can sight be dependent on the eye? The eye is due to the analysis and consequent materialisation of the function of sight. If the parts of the eye are due to analysis, they cannot arise or be "created," even temporarily, on the road of evolution. There must be sight independent of the eye. The eye is due, not to act, but to non-act. Bergson assumes that matter is a reality, and that it is organised so as to allow mind to escape the meshes of necessity. The truth is that the organisation of the eye removes a hindrance to sight; but does not directly serve the function of sight.

We can see without the intermediary of the eye. The faculty of sight is independent of particular organs. Naïve materialism avers that the association of the physical eye and sight-perceptions cannot be broken. It regards sight as a refinement of touch. It always bases the higher on the lower. In our view, we are bound to reverse this

procedure. Mind is not bound to localise sight—it sees everywhere. The whole body, not assumed to be material, is potentially an eye, an organ of sight. [Cf. " Eyeless Sight," by Jules Romains (Putnam).] Sight is not a refinement of touch ; but rather touch, a roughening or blunting of vision —a sight limited to contact.

In the higher orders of mind, sight is limited to a part only of the body, whilst the rest is held to be merely an organ of touch. In this respect the body is continuous with the rest of sentient matter, which also is supposed to be endowed with tactile perception.

Seeing by the eye is the result of long evolved racial habit. In many of the lower organisms sight *appears* to be diffused over the whole body. Sight is a power of the mind, not of the body. The spirit undoes the inertia of automatic action and brings the various faculties of sense back to the unity of mind and thus keeps them independent of the various sensory organs.

These so-called sense functions of the body are disabilities of the mind. When the spirit is active this limitation cannot stand. The activity of spirit dematerialises the body and undoes the localising of functions in special parts of the body.

Pain is well described by Bergson as a " local and unavailing effort ". It is just because the effort is local that the pain arises, and the more the effort is localised the greater is the liability to pain and accident. If sight were placed on the basis of mind it would not suffer accident, and it would not be contaminated by illusions.

Pain is the nearest to an intuition of matter. It is the terminus of the tendency to passive or analytic perception. It is the undifferentiated feeling in which all perceptions, sensations and concepts merge. Here the subject is entirely dissolved away and becomes like a material object, helpless and senseless. This would be an " intuition of matter " which would, at the same time, denote the utmost subjectivity.

The body is a unity which cannot be broken up into elements called senses. To regard the body as the combination of parts is the vicious viewpoint of biology which, introduced into psychology, makes double confusion. The body is independent of sense-organs. It is an abstraction ; the concept of body is complete in itself without the notion of eye, ear, hand, heart, etc. These are to be held to be negations of body. These spatialise the body and negate its freedom. Concrete mind destroys the concepts of organs. To invent the concept of sense-organ is to localise mind and to ensure pain to oneself, according to Bergson's own principle : that pain is a " local and unavailing effort ". Sense-organs break the superior unity of body, and this is bound to cause disturbance and disharmony, in other words, pain. This pain is not external, is not in crass matter, but results from inability to maintain the unity of thought which keeps the body in place. Body itself is not an ultimate unity. Just as body *qua* body leaves no room for organs, so mind *qua* mind leaves no room for body.

What holds true of external perception holds of the brain and nervous system. According to Bergson, they are each functions of the indetermination of the will. According to us they are each functions of the mechanical determination (constraint) of impulse. It may sound paradoxical to assert that an elaborate brain and nervous system is the symbol, not of the power of the mind, nor of the extent of its freedom, but of the reverse. But a consideration of Bergson's own description of the *modus operandi* of the mind in perception serves only to confirm this view. Any mechanical injury to the nerve, such as the simple severing of one of the efferent nerves, immediately destroys perception because it destroys the power of objects to make an appeal to the motor activity of the percipient. But what can be destroyed by mechanical means can itself be only a mechanism. The nervous system is of a mechanical nature, and cannot mark the extent of the mind's indeter-

mination (freedom). There can only be real freedom, real escape from mechanism, where there is a power that can mediate the formation of a new nervous system when the old is destroyed, or can dispense altogether with a nervous system. Any supposed power that manifests itself in a material structure must be mechanical.

But does not the elaborate brain of a scientific genius like Newton denote more indetermination (freedom) than the brain and nervous system of an imbecile? The mere increasing complexity of brain and nervous system does not deliver us from mechanism. Elaboration of brain multiplies our relations to the environment, but these relations are still mechanical. As Bergson points out, the nervous system is not an instrument of thought or a means of producing perceptions or receiving perceptions; it is simply a transmitter of movement. There is nothing to mark that this movement is free or exempt from mechanism. The elaborateness of brain is an index, not of the indetermination of the percipient, but of the extent to which the environment or objects have impressed themselves on the percipient, or of the constraint they have imposed upon him.

It measures not the freedom of the subject, but its subjection to objects. Thus, elaborate brain similar to external perception is not something positive, but something negative. The logic of Bergson's own principles drives us to this conclusion. Bergson terms the perception a question put by objects to the motor activity of the living being. In so far as the answer to the question put is pre-determined by the nature of the environment itself, the nervous system is not the mark of indetermination (freedom), but of inertia.

Bergson says ("Matter and Memory," p. 40): "We are too much inclined to regard the living body as a world within a world, the nervous system as a separate being, of which the function is first to elaborate perceptions, and then to create movements." Yet we have to charge

Bergson with making the same mistake as that which he attributes to the unphilosophic consciousness. For has he not assumed that the living body is a centre of activity? And has he not thereby sundered the nervous system from the rest of the physical universe? If the connection of the nervous system with the physical world be restored, will there be any room for the assumption that human bodies are centres of activity? He expressly denies, not only that the body elaborates perceptions, but also that the body creates movement. If so, the movements of the nervous system must be like the movements of images among themselves, which, Bergson says, is that of mechanical necessity. On this line of reasoning again we are driven to the conclusion that the nervous system, in all its complexity, symbolises mechanical impulses and not the freedom of the will.

All organisation can be looked upon as the negation of bare contingency or bare automatism. Error arises when we look upon body as the field of manifestation of the power of mind. Body acts in proportion as mind ceases to energise. Thus, mind and body cannot be thought together; all the foolishness of materialistic and parallelistic theories arises from the attempt to think them both together.

The effects of mind on body are manifested, not by direct action on it, but by its independence thereof. Creation of body is inconceivable as the result of the energising of mind. It would be to suppose that mind would of itself create the obstacles to its own activity. No less absurd would it be to suppose that mind manifests itself in two opposite modes. The fault of the Bergsonian intuition is that it seems otiose, that it does not alter material conditions. But real intuition repairs accidents, overcomes the disabilities of matter and reverses its downward tendencies.

It may be said, in the case of a man whose flesh is burnt, is not the nervous and cerebral process prior to the mental process? What is the connection between the bodily process burning flesh, and the experience of burning flesh? The psychical process of burning flesh is prior to the physio-

logical process of burning flesh. It is not burning flesh that produces the feeling of pain. If the body were dead, burning flesh would produce no pain. It is conceivable that a man should have pleasure, or merely neutral feeling, in his flesh burning. The pain, pleasure, or neutral feeling is not derived from "burning flesh," but is carried to it. Burning flesh is merely the occasion of our experience of burning flesh, or simply an analytic interpretation of that experience. If a man is hypnotised and told, at the touch of a piece of cold iron, that his flesh is burning, he has the experience of burning flesh and his body shows the mark of the burn. In every case the mental process is prior to the cerebral process. The mind can accept or reject any bodily process. The body of a drunk man does not, after a heavy fall, show the contusions that the body of a sober man undergoing the same treatment would show. Where consciousness is absent there is no bodily process.

Smiles in his "Life and Labour," page 69, cites an illustration of the same truth: Babbage in his "Life of a Philosopher" mentions a case in which Rogers the poet showed that he possessed a very active imagination. While sitting at dinner with a friend, the poet sat with his back to a window consisting of a single sheet of glass. Looking back, he fancied it to be open and thereupon immediately caught cold. The imagination of a cold was the precursor of a cold. The cerebral or bodily process is invariably contingent on experience. The reason why the outward process seems more real and vivid than the psychic experience which generates it, or out of which it comes, is due to the habitual inversion of all values which materialism induces.

CHAPTER X.

THE THEORY OF EVOLUTION.

Radical Mechanism and Radical Finalism—Intellect and the Vital Impulse—Creation and Evolution—Darwinism and Lamarckism—Bergsonian View of Evolution, mere Contingency—The Dualism of Life Force *versus* Environment is Psychological not Metaphysical—The Concrete not to be derived from the Abstract—Evolution always relative to Devolution.

Radical Mechanism and Radical Finalism.

We have now finished our examination of Bergson's "Time and Free-will" and "Matter and Memory" and his other subsidiary philosophical works, and our first thought was to stop there. But a criticism of the "Philosophy of Bergson" could scarcely be regarded as satisfactory, which did not take into consideration his third important work, "Creative Evolution". This book is more scientific than philosophic; it would require a treatise and not a chapter to do it justice, but it is needless for our purpose to examine it in detail. Bergson's ideas on Evolution are implied in and have been referred to, in what has gone before. But it will be convenient to use the work "Creative Evolution" in order to bring to a focus Bergson's ideas on this most important topic.

Just as Bergson has explained Intensity by the abstract notions, pure quantity and pure quality, and Time by the abstractions, space and pure duration, and Free-will by the abstractions, mechanical causation and contingency, so he tries to explain the history of plant and animal forms by reference to the contrasting theories of radical mechanism

and radical finalism. " Radical " is here another name for " pure " or " abstract ". As we have frequently shown in similar instances, when these abstractions are pressed, they turn into the same thing. No one shows better than Bergson himself how much alike radical mechanism and radical finalism are, and it is matter for surprise that this result of his own cogitations does not hint to him the needlessness of these abstractions. The views denoted by these terms are logical contrasts and do not bring us into touch with real experience. In point of fact, Bergson makes little or no use of these theories when he comes to deal with the concrete facts of biology, and his own philosophical views could have been perfectly well explained without them.

The difference between mechanism and finalism is that the one regards the vital energy in Nature as an impulse issuing from the dead past ; the other regards it as due to the pull or attraction of a final end placed in the unknown future. Finalism is mechanism with the element of volition superposed upon it. Bergson claims that in the old-fashioned theory of Final Causes the final cause was merely an intellectual construction. Mechanism, too, is an intellectual construction. According to Bergson the intellect, which sets the end in a finalistic view of the world, is at bottom an instrument for constructing systems of mechanics. The intellect gave birth to mechanism, and cannot get on without it. This combination of mechanism and finalism is seen in the ordinary crafts employing tools or machinery.

Bergson is quite right in his polemic against the crude notion of Finalism, according to which the Creator makes the world in the same way that a builder makes a house. The error consists in figuring total experience after the analogy of some of its elements. Bergson says that his own view is much nearer Finalism than Mechanism. What improvement does he introduce into previous views ? He defines his own view by a negation, namely by its repugnance to all intellectual formulation. The intellect can

deal not with Life, but only with the dead forms of past life. It deals only with the results or deposits of life, not with living processes themselves. The character of the agent in life from its very nature cannot be stated in intellectual terms. The vital impulse does not move towards a final end in the way in which a human being plans and carries out a design. The end is, as it were, immanent in the process of life itself. It realises itself from moment to moment. If the vital impulse had to wait for an end, this would involve a stoppage or repetition of action and would precipitate Life into material inertia. The essence of the movement of the vital impulse is that it is unforeseeable.

It seems to us that Bergson, instead of improving Finalism, is much nearer Mechanism than Finalism and indeed falls below mechanism into mere contingency. There is no real unity in this energy in Nature. Bergson condemns the Finalists for breaking up the unity of a Final end into the ends of the separate individuals in Nature. But he commits the same error himself when he makes the vital impulse act momentarily but not integrally. The vital impulse is not human, much less superhuman, but subhuman. This is not a solution of the metaphysical problem, but a giving it up altogether.

As against the Finalist view we agree with the contention of Bergson that there is not a unity in Nature. The series of animal or plant forms are not merely diverse but divergent. Many of the lines of " evolution " are obviously abortive or end in culs-de-sac. Numerous plant or animal forms are hostile to each other and engage in mutual extermination. In spite of the fact that there is a certain amount of adaptation and accommodation of plants and animals to each other, it cannot be shown that there is a real unity in the system of organic and inorganic Nature. But if so, and Bergson has clearly shown it, why does he claim that the vital impulse at the start was a unity and only showed divergences in the course of development ? This is what

we deny. If there was a real concrete unity at the start, we affirm that it could not have split into a multiplicity of opposite and warring energies. Bergson can properly speak not of an élan vital, but of élans vitaux. Bergson has sought for unity in the wrong place. Not finding it in Nature, he has sought for it in a bare abstraction, a vital impulse which still contains within itself the potentiality of irreconcilable conflicts. The fact is that the whole system of organic and inorganic Nature is an abstraction, whereas Bergson treats it as an actuality. It is not a permanent state of things but a passing stage of human belief. The appearance of it cannot be explained without recourse to moral and religious issues.

Bergson calls his book " Creative Evolution," and raises the presumption that the élan vital is creative. But if creation means anything at all, it means unity. When an artist paints a fine picture, the lines and figures are not at odds with the colours, nor does the paint war with the canvas. We have not the slightest right to call the vital impulses creative. We have only a half right to call them instances of evolution, for all the lines of divergence in the evolution of plant and animal life mentioned by Bergson are at the same time instances of devolution or dissolution. The plausibility of the phrase " Creative Evolution " is only got by ignoring the relativity of evolution to devolution. We should not be so likely to speak of " creative devolution " or " dissolution," and yet the phrase would be equally well warranted. " Creative Evolution " is a contradiction in terms. It is a well-meaning but mistaken attempt to confederate religion and science. Bergson does not take seriously the notion of a Creator, a supreme Mind acting freely, i.e. having nothing external to Himself. Evolution starts from half-intelligent or lower forms of life, works through dualism and contingency, and ends nowhere. Bergson has not smelted the two notions, Creation and Evolution, together and we believe it impossible to do so.

Intellect and the Vital Impulse.

Bergson says the vital impulse is a cause which is continually producing effects which transcend itself. How can a cause produce effects which transcend it? A series of ascending causes and effects is always relative to a series of descending causes and effects.

Again, Bergson says that the vital impulse transcends the intellect—that Inanimate nature and the abstract world of the natural sciences come properly under the purview of the intellect, but that all forms of the vital impulse are cognised only by that form of consciousness which, while it envelops the intellect, is much wider than it, namely Intuition. But we have shown already that the intellect cannot be confined to the study of mathematical relations. Intellect and animate nature are quite commensurable. If the human intellect can see itself reflected in the forms of animal life, if these forms show themselves so amenable to the grasp of the intellect, is it credible that intellectuality of some sort had nothing to do with their production? To say that the instinctive forms of behaviour transcend the intellect and therefore cannot be grasped by it, is a gratuitous assumption. The divergent forms of animal life are permeated with intellectuality and, we believe, are the result of some kind of intellectuality.

By this we do not imply that the intellect created them, for we do not believe these divergent forms belong to the real creation. The intellect cannot create. It can only produce a variety of abstract forms—such as the plant and animal kingdom offers us. Bergson says that the intellect can cognise not the real life of these forms, but only their dead and fossilised remains. But what kind of life do these forms possess? It is a narrow, limited, and abstract form of life. And if Bergson's view of the intellect be correct, is not this the most suitable material for the intellect to apply itself to? We must remove the vital

impulses from the sphere of Intuition to which Bergson relegates them and put them into the domain of intellectuality. The violent opposition set up by Bergson between the élan vital and the intelligence is a common form of the metaphysical view that makes a dualism between the will and thought, such as we see in Schopenhauer. But, as our treatment of the subject in previous chapters has shown, intellect and impulse are complementary aspects of the same psychical fact, they involve and support one another. A vital impulse without intellect would be void and featureless. The élan vital plays the part in Bergson's philosophy of the Unknowable in Herbert Spencer's. Our contention is that the élan vital is intellectual and can be cognised by the intellect.

Creation and Evolution.

One way of stating the primacy of the will over the intellect is to say with Bergson that the intellect was "evolved". But when we speak of "Evolution" intellect is already implied. Intellect has produced, deepened, and extended the theory of Evolution, and it cannot be denied that intellect had something to do with the phenomena with which the various theories of Evolution deal. If evolution has produced the intellect, it is no less true that the intellect has produced evolution.

Bergson spends a great deal of time in hammering out his view that the evolutionary process is a series of changes which could never have pre-existed in the world in the form of ideas. Only the magic of his style, which does not disappear even in the English dress, and the infinite variety of his phraseology save it from being wearisome. The continual reiteration of the point and the inexhaustible variety of lights in which he displays it, show the importance he places on it and also impose on the reader. His view seems completely to overshadow mechanism and finalism. But for our part we can find nothing new in it. The amount

of language used to illustrate and commend it ought not to conceal the plain and simple implication of this view, namely that the lines of evolution and all their segments are the outcome of mere chance. Bergson has to qualify this view, as he usually has to do all his extreme statements, but in the first instance this is a denial of any order in Nature. The relative degree of order that we see in Nature has always a tendency to move towards contingency, but we contend never actually reaches it. It is most surprising that Bergson should equate these series of contingent changes with a creative act. It is quite needless to adduce a creative power to explain these changes. These spasmodic and disconnected changes are utterly rebel to all formative influence and it is ridiculous to refer them to any creative activity.

Bergson avers that, though the steps in the course of evolution are contingent and unpredictable, the mind can systematise them after they have occurred and make them an orderly series. But if the events of the evolutionary process in their essence are disconnected and unforeseeable, how can the mind connect them ? Is the mind functioning properly when it tries to make rational what is essentially irrational ? Bergson assumes that, when the acts (if " acts " they can be called) of the vital impulse are intellectualised, they lose vitality and give up the semblance of life. This all depends upon the quality and degree of intellect which is applied to them. In point of fact these contingent changes manifest a much lower vitality, a much slacker tension of life before than after the higher intellect deals with them.

Bergson finds it quite impossible to maintain the view of evolution as mere contingency and unconsciously gives it up in the course of his analysis. His theory of evolution is a mere speculation quite useless for explaining what we know and would rather obfuscate than help the biological enquirer. Bergson qualifies his primary view by others with which it is irreconcilable and, when we look at

these modifying views, we find them to be just the mechanism and the finalism which he has discarded. He gives the reader the impression that mechanism and finalism cannot hold without the improvements he has made on them. But it is really the other way about. His own view, when once it is stated, proves so shaky and one-sided that it needs mechanism and finalism to help it out. Mechanism and finalism scarcely merit the severe handling he gives them when they turn out to be such valuable accessories to his own view.

The language of "Creative Evolution" is constantly tinged by phrases of a mechanistic colouring. He writes that unity in Nature is to be found not in an ideal aim in front of it but in a propulsive force from behind which splits up into many divergent tendencies. But if Nature be in any sense a mechanism or a series of causes and effects, how can we possibly maintain that they were contingent and unpredictable?

At other times Bergson uses the language of finalism. In his "Creative Evolution" he makes the penetrating remark that the causes of the divergencies in evolution are "psychological". This casual remark carries us much further than we think at first sight. For if it means anything at all it means that biology is in the last resort dependent on psychology. And however much we might conceive ourselves able (and I do not think we are able) in Biology to get along with nothing more than the simple category of mechanism, in Psychology we must have finalism of some sort.

Darwinism and Lamarckism.

Bergson forcibly shows that the Darwinian theory of variations—whether of slow and insensible or of sudden and perceptible variations—is quite inadequate to account for the phenomena of organised life. Here he takes the standpoint of the finalist. He shows that in order to

produce a definite variation many changes are necessary and must be co-ordinated. They cannot be accidental. They must be the expression of definite striving. But, if so, must not Bergson discard his primary view that evolutionary changes are momentary and unpredictable? If the changes are not haphazard, then must not the future be in some sense inflected into or prefigured in the present? Not only must there be an end implicit in the striving, but it must be in some sense intellectual also, otherwise it would not be capable of formulation.

Bergson starts from the Lamarckian view that variations originate in the effort of the organism altering its own organs, transmitting the changes to its descendants, and thus gradually stabilising the variation in a new species. Bergson says that the effort that results in variations is not conscious, not intellectual, not an effort at all in the strict sense, but something that can be found by digging in the subconscious. He says that the vital impulse is deeper than conscious effort, but to us it appears to be something more superficial. It is obtained by a process of abstraction. The vital impulse is simply conscious effort shortening its span of consciousness, slackening its tension and gradually falling away into aimless movement. However far it moves in the direction of a total unintellectual formlessness, it never actually reaches it. The vital impulse serves to interpret but a small segment of physical life, and to use it as the key to all the evolutionary processes in animate and inanimate Nature is to strain its importance out of all proportion.

It is a notable fact in natural history that the molluscs and the vertebrates developing on widely separate lines, and having very dissimilar physical organisations, have yet each developed similar eyes. Bergson gives what seems to be a mechanical explanation of this fact. He attributes it to the unity of life at the start, which in spite of the splitting up of the vital impulse in many divergent directions, has yet preserved something common. But the

appearance of the similar organs of vision on two separate lines of evolution cannot be set down to the mechanical propulsion of the original élan vital. We are here dealing with forms of psychic life and not with physical forces. Psychic states can be acted on, not by mechanical forces, but by motives or ideas inchoate or fully formed. The force that produces eyes must not merely push from behind but draw from in front. This remarkable phenomenon is susceptible only of a finalistic interpretation and is really due to the fact that vision is a universal faculty of consciousness, which all living beings aim at.

Bergson points out carefully the differences between mechanical machines and the organic structure of living beings. But we must not press these differences so far as to overlook their similarity. In Nature there are no mechanisms in the abstract sense of that term. Every mechanism partakes of life. Furthermore, organic structures, after passing their period of culmination, gradually relapse into mechanism. Mechanism is a diminished form, or limiting case, of organic structure. Whenever psychic life takes shape in organisms, it is already on the road to mechanism.

It is because of this principle that all attempts to base a theory of the evolution of Life as an absolute truth on the examination and study of organic structure are doomed to failure. Real life cannot be embodied in organisms. The genuine qualities of life are preserved only in consciousness and cannot go out of consciousness without being obscured and perverted.

We see in " Creative Evolution " no attempt to find out or apply a standard of truth. Without this we cannot say whether any supposed example of evolution really fulfils itself or achieves an end. What is evolution from one point of view may be devolution from another point of view. Thus, motor transport by road has to a great extent displaced locomotion by rail and only waits the development of air-craft to be itself superseded. Every line of evolution

is thus a line of devolution. Many developments of modern science will end in culs-de-sac like ancient alchemy and astrology, i.e. will prove like many lines of evolution in the plant and animal kingdom, abortive.

Bergsonian View of Evolution mere Contingency.

Bergson has altered his first view of evolution as contingency in a finalistic direction and it would seem natural that he should discard or recognise the limitations of the view with which he started. But at the end of his first chapter of "Creative Evolution" he writes (pp. 101 and 102): "But, in speaking of a progress toward vision, are we not coming back to the old notion of finality? It would be so, undoubtedly, if this progress required the conscious or unconscious idea of an end to be attained. But it is really effected in virtue of the original impetus of life; it is implied in this movement itself, and that is just why it is found in independent lines of evolution. If now we are asked why and how it is implied therein, we reply that life is, more than anything else, a tendency to act on inert matter. The direction of this action is not predetermined; hence the unforeseeable variety of forms which life, in evolving, sows along its path. But this action always presents, to some extent, the character of contingency."

Here Bergson recognises that he has been slipping back into the notion of Finalism against which he has been tilting, and therefore reaffirms the view which is in stark contradiction with it, namely the contingency of natural events. We can only regard this as a piece of self-mystification. He has just rejected Darwinism in every shape and shown that there is a coherent order present in the production of variations; but now in reaffirming contingency he out-Darwins Darwin and all the Neo-Darwinians.

In attempting to get beyond Finalism, Bergson falls below it. We readily admit his criticism of the notion of

a Final Cause as being an intellectual abstraction, an ideal not real. But we cannot accept his substitute for it. Bergson makes the mistake of taking finalism and mechanism as absolutes and then pitting them against each other. In truth they are, like evolution and devolution, relative to each other.

Our criticism of the notion of a final end is that it assumes that the Whole is in the process of making and that it will be finished in some future time. This pragmatic assumption we deny. Reality is already complete and does not need *to be* realised. If we say that Nature aims at a final end (Finalism), we must say that Nature has fallen away from it (Mechanism). In falling away from an absolute standard, Nature cannot but aim back to it. The notion of a final end can only be applied to Life when it is regarded in relation to something supposed to be outside it. This is the same as saying that the notion of Evolution must be discarded when we come to concrete experience. The notion of Evolution is a category for the study of History and implies that time is spread out in the past and in the future. There is no room for this theory in the absolute life where all is realised and which is not affected by evolutionary or devolutionary changes.

Extremes meet, and it seems as if Bergson, in developing his idea of contingency, was really aiming at some idea of an absolute experience. But excess of light though it may produce a momentary blindness, is not the same thing as absolute darkness. The absolute life is as remote from contingency as light from darkness.

It may be argued that we have no right to bring Nature to the test of such a standard. But science is continually applying standards of various kinds, and if the work of science gives rise to no uniform picture of Nature but rather to irreconcilable contradictions, what then? To isolate the kingdom of Nature and to find its explanation within itself without reference to moral standards seems to us hopeless. In point of fact, the standard of human

reason is always implicit in Bergson's arguments and in declaring that the élan vital which is the cause of all variations, is devoid of thought and will, he has practically condemned the whole natural process.

Bergson makes human evolution the main line from which the other lines of evolution diverge, and by reference to which they are judged. But human evolution is no more absolute than the other lines of animal development. Human civilisation in so far as it is materialised, i.e. funded in material products of any kind, such as buildings, books, pictures, etc., must undergo the relative process of devolution.

Bergson says that evolution is more and more an action on " matter ". " Inert matter " is a notion now totally exploded in science. But without pressing this point unduly we must point out that this definition of evolution is at the same time a definition of devolution. This is in accordance with the principle of Bergson that it is the function of consciousness to mould the body to material action. What Bergson formerly declared to be the function of consciousness in general he now declares to be the function of the sub-conscious élan vital. This latter proposition is, indeed, much the more defensible of the two. Be that as it may, matter is never, according to Bergson, subdued. If one form of matter is conquered another form arises to be subdued. Matter, therefore, will determine every process of evolution to dissolution. Our contention has been that the path of the spirit is free and that it is no part of its office to turn itself to material action. Bergson characterises matter as an " obstacle " to be resisted. In truth, the so-called " obstacles " simply consist in the illusion of limited forms of consciousness.

The view that matter is a hindrance to action is illuminating, and would have been still more so if Bergson had consistently developed it and removed from his work all traces of other views. The notion that material forms are instrumental to some purpose is not, however, discarded.

The view that matter is an obstacle is much more profound than the view that matter is a useful implement, and could easily have been made to supersede it. But both these views are metaphors, and Bergson falls back sometimes on the one, sometimes on the other. The view that matter is an obstacle is a useful stepping stone to the view that matter is a nonentity.

Bergson, in his second chapter, expresses his theory of the evolution of life in one of his picturesque but superficial metaphors which are more misleading than suggestive. Life is like the bursting of shrapnel with explosive force, scattering fragments in every direction. The unity that is to be sought in life is not to be found at the end of evolution but at its beginning. Life is continually striking out new paths. Only a few have proved fruitful; the vast majority have turned out abortive.

Here Bergson makes an abstract separation between unity and multiplicity, between identity and variety. Why should unity be placed at the beginning of the course of evolution and multiplicity at the end? Identity and difference are only aspects of a single Whole. Bergson simply reverses another common form of cosmogony, which places Chaos at the beginning of things and supposes that the brooding Spirit or Demiurge reduces it to unity. But his manner of thinking is no more logical than the other. Bergson says the various lines of evolution are "divergent," but this he is compelled to say simply because he has postulated the unity out of which they came as bare and empty.

The lines in the course of evolution which prove abortive do not introduce variety into life but the reverse. There is really only one divergent or separatist tendency in life, and that is the tendency to materiality and fixation. This is what all the abortive roads of evolution lead to. When Bergson writes: "From them we have to go back, stage by stage, to the original movement," he is trying to reach the real unity by a process of abstraction. By such a method he reaches nothing at all.

The Dualism of Life Force *versus* Environment is Psychological, not Metaphysical.

Bergson writes (p. 103): "When a shell bursts, the particular way it breaks is explained both by the explosive force of the powder it contains and by the resistance of the metal. So of the way life breaks into individuals and species. It depends, we think, on two series of causes: the resistance life meets from inert matter, and the explosive force—due to an unstable balance of tendencies—which life bears within itself. The resistance of inert matter was the obstacle that had first to be overcome."

A dualism between the vital impetus and inert matter is no solution of the problem of evolution. Metaphor is not metaphysics. This is only a seeming explanation. Even if it be granted for the moment that matter is anything at all, it is an entirely unknown and incalculable quantity. We can measure the force of a steel spring by reference to some other physical force such as the force of gravity. But what force is there by which, as a standard, we can measure the "resistance of matter"? We can measure forces by relation to each other inside a given physical system, but this procedure which can be applied to partial systems inside the universe cannot be applied to determine the universe as a whole. And if there be a real dualism between matter and the vital impetus, and if the vital impetus is of the nature of spirit or consciousness, how can spirit measure the resistance of matter? If the matter is to be measured, would not the vital impetus have to be conceived as a physical force?

Is it not clear that this dualism of vital impetus and matter is of psychological origin and that we have here a case of the reification of states of mind? Do we need to go beyond the vital impetus itself to find the origin of this dualism? We naturally project outward the hindrances within ourselves.

Bergson here is under the domination of the Darwinian theory of the struggle for existence. Darwin's theory had been purely scientific. The struggle for existence was limited to that between various animal species. In Bergson, the scientific theory has become a metaphysic. Matter and the vital impetus enter into a "struggle for existence," each trying to get the better of the other by force or fraud. Physical power is the weapon of matter, cunning that of the vital impulse. To quote Bergson again, continuing our last citation (p. 103): "Life seems to have succeeded in this by dint of humility, by making itself very small and very insinuating, bending to physical and chemical forces, consenting even to go a part of the way with them, like the switch that adopts for a while the direction of the rail it is endeavouring to leave." Bergson dramatises and illustrates with striking and ingenious metaphors the relations of matter and mind as a struggle for existence, without giving any philosophical insight of the Unity that is beyond and apart from the struggle. If matter be, as we have proved, a mere supposition of the human mind, then his account loses all verisimilitude. He represents mind as insinuating itself into matter, as striving by a kind of diplomacy and cajolery to get recalcitrant matter to be amenable to reason and to do what it wants. Matter is always pulling back whilst mind is pushing forward. Concessions must be made to matter, he alleges, in order to extract a *quid pro quo*, and to constrain it to follow the behests of mind. All this is mere picture thinking and darkens counsel instead of introducing clearness into the subject. It requires but the slightest reflection to perceive that these various forms of dualism, when traced back to their source, fall within the human mind itself and have nothing to do with real fact or final Truth. The dualism is psychological not metaphysical, it is a phase of human belief, no transcript of the nature of the real. This continually recurring dualism sometimes has its root in verbal logic. Torpor waits

upon activity, it is said, unconsciousness waits upon consciousness. Here the familiar dualism appears as a struggle between torpor and activity, between unconsciousness and consciousness. But this is merely a rhetorical contrast. Are we going on account of this easy mode of speech to erect torpor and unconsciousness into actualities; are not torpor and unconsciousness mere negations? Are they not passing phenomena of the analysing intellect which Bergson so heartily condemns for distorting the truth of things?

Unconsciousness cannot overtake the absolute Mind, nor can its activity be struck with torpor. It is most objectionable that Bergson, in attributing these defects to an imperfect system or to the elements inside a system or to an abstractly conceived system, should give rise to the notion that these defects could apply to the Whole itself.

Bergson places the beginnings of life in undifferentiated protoplasm and supposes that it is the function of the vital impetus to organise protoplasm into living beings. We contend that there is an organisation of life independent of protoplasm and that there is no need to organise matter. Real life is independent of the vital impulse. Every creature organised by the vital impulse becomes decrepit and dies. According to Bergson himself, the movement of the vital impulse has resulted in impasses and culs-de-sac. The vital impulse is not an agent at all. It is not without reason that Bergson brings together matter and the vital impulse. But instead of making a dualism between them, he should have made them co-ordinate. They do not contend against but embrace each other. They are complementary aspects of the same phenomenon.

What the vital impulse organises is only the by-product of life. The vital impulse and its works are not what true life aims at, but what it leaves behind. According to Bergson, the élan vital stores up in the lower forms of life energies in such a manner that they can be readily turned

to account by the higher forms of life. Just as the touch of the trigger releases the energies of powder that sends forth the bullet, so the human nervous system releases and turns to account the forces stored up in the animal and vegetable foods which our bodies assimilate. This involves the view that all action must be material and that the higher energies of the spirit are not merely dependent on material instruments, but must be directed to material ends.

The Concrete not to be derived from the Abstract.

Some have claimed for Bergson the credit of being a metaphysician who knew much more about the facts of science than the ordinary philosopher. In point of fact, it seems to us that he is primarily a scientist, who invades the province of Metaphysics with a very inadequate perception of the demands of philosophy. We find in Bergson not metaphysics but speculation combined with picture-thinking. Thus the picturesque metaphors, by which the life impulse of the organism is likened to the explosive forces of the powder or dynamite inside a shrapnel shell, and the material environment is likened to the resistance of a thicker or thinner shell, is thoroughly misleading. It supports, and even intensifies, an erroneous dualism derived from common thinking. Furthermore, it pretends to explain by reference to purely chemical processes vital or psychological activities which are only distorted and misrepresented by being paralleled by material happenings.

This mixture of picture-thinking and speculations appears in Bergson's account of the origin of the difference between plants and animals. He writes ("Creative Evolution," p. 118): "Now it seems to us most probable that the animal cell and the vegetable cell are derived from a common stock, and that the first living organisms oscillated between the vegetable and animal form, participating in both at once." The organism is, at the beginning, a blend of animal and plant. It might be either one thing or the

other. It is afflicted with ignorance and infirmity of will. It oscillates for a time between one course and the other, and then finally decides in some mysterious and unexplained way to take the one line or the other.

We may grant the phenomenal existence of organisms, that partake vaguely of the characters of the plant and animal, but the allegation that organisms of this inchoate and uncertain type were prior to the more clearly differentiated types of animal and plant, is entirely without foundation. We have here a derivation of the concrete from the abstract. He transfers the logical process of analysing the concrete into a process of natural history. Because we find it convenient to start in logic with analysis, we must not assume that the actual vital and psychological processes begin the same way. The half-plant, half-animal forms, if there are any such, are derivative from the whole system of Nature, and it is ridiculous to adduce them to explain the difference between the clearly-marked types of plant and animal.

We find in modern days the same error of hypostatising abstractions and turning logical processes into phenomenal history, in the loose manner in which plant and animal and the human being himself is derived from the amœba. This is as if the acorn explained the oak and not the oak the acorn. The amœba is not a beginning but a resultant. It is not a bare unit but a microcosm. It derives from the whole system of Nature and to seek to explain Nature by reference to it savours of mere make-believe.

Evolution always Relative to Devolution.

To say that the concept of evolution is the product of a highly developed society is to assume the very point in dispute. The assumption that we are highly developed is gratuitous. The theory of evolution cannot do otherwise than assume that we are at the highest point of the process thus far. But it must also assume a downward movement

as well as an upward; degeneration as well as development. Ordinary experience is always a mixture of the two. Evolution must assume the lowest point as well as the highest point to be within experience. So long as we assume the existence of the material world we must come back to it. The civilisation that bases itself on the physical world is bound to return to matter. Bergson's description of how the memory actualises itself in action is a good instance of the degeneration of the concept to matter, and is the natural pendant of his description of how the homogeneous vibrations of matter develop into percepts and then into concepts. The whole process in each case is phenomenal. It begins and ends in the unconscious. Material evolution is hypothetical through and through. The concept of materialistic evolution tends to produce all the phenomena that seem to warrant the erection of the evolution theories into an ultimate principle. This applies no less to theories of mental evolution.

The evolution theory depends upon dualism, and is put forward in order to escape the difficulties of dualism, but the only way of escape is to stop the evolution of matter into concept, and the devolution of concept into matter.

If we once surrender belief in matter, metaphysically speaking, we cannot go back to it again. Intuition *un-sees* matter. Every abstraction is, to a certain degree, unconscious, or rather subconscious, for consciousness in the full sense can belong only to ultimate reality. It is our business as philosophers, not to investigate the illusions of matter and abstraction, but to escape from it, and this can be, not by discursive reasoning, but only by intuition.

The phrase "creative evolution" brings together irreconcilable ideas. Creation belongs to intuition; evolution belongs to intellect. The evolutionary force (the élan vital) does not create, it analyses and breaks up; it invents artifices. In evolution we have an interesting example of the principle of a "more attentive psychology" pointed out by Bergson himself, that effects precede causes. We

say the present is the effect of the past. But what is the past but a theory engendered by the present. The past, as construed by the evolutionary hypothesis, is an artificial reading of our experience, which again tends to mould our interpretation of the present and determines its character. Evolution is the aiming at an abstract or material end. Here again the effect precedes the cause and colours it. Intuition displaces the chain of causes and effects; it realises an end without instrumentality.

It is a mistake to connect into a rational whole the various phases of evolution. No theory can comprehend or rationalise error without becoming itself erroneous.

The hypothesis of degeneracy tends to find all the phenomena which seem to validate it and to make our experience conform to our theory. The concept of degeneracy is prior to degeneracy itself. We can only escape from this impasse by immediately placing ourselves in intuition, wherein we cannot admit that we are at a lower stage out of which we have to evolve. If the movement that places us in intuition be itself termed evolution, we can only reply that such a process does not fall within the activity of concrete mind. The movement by which we place ourselves in intuition is not a process of evolution, but a discontinuous process of conversion, a process of substitution and displacement.

The process of evolution always ends where it begins and begins where it ends. It is a circular process. In this sense it is a beginningless and endless becoming.

The intellect is driven to postulate evolution since it must seek intermediaries between the two supposed heterogeneous poles of realities.

Man himself by his action has made the theory of evolution seem necessary. The evolutionist finds the facts to suit himself. The linking of man to the animals, which has been the result of modern theories of evolution, has coincided with his degradation. In evolution one error supplants another; but concrete truth, pure mind, displaces

the whole evolutionary process. All forms of error can be reduced to the one error-dualism. Matter, plant, animal are nothing but forms of non-mind, i.e. matter is the negation of the plant, as the plant is of the animal, and as the animal is of man. These forms of non-mind are hypostatised as realities. But from the position of concrete mind all these forms of non-mind disappear.

It is the evolution of the sciences that makes necessary evolution in the plant and animal kingdom. The Darwinian theory of natural selection is a carrying into Biology of a concept found continually applied in the non-moral struggle in human society for the means of existence, that is to say, this theory is carried from politics and sociology into Biology, and not *vice versa*. The theory of evolution in general and in detail is a piece of anthropomorphism. It is derived from the notion of the growth and decay of human individuals. Just because we in childhood have to start from the simplest elements of education (such as learning the alphabet), and have to go through a long process of expansion and deepening of our knowledge until we reach maturity, we are naturally impelled to envisage reality as passing through the same process that we ourselves are undergoing. But just as in calculating the motions of objects whether on the earth or in the sky, we must carefully allow for the interfering effects of our own bodily motion, so in tracing out world processes we must not overlook the distortion of our views that is produced by our own growth and education. We must not import into our view of reality the subjective peculiarities due to the birth, growth, maturity, and decay of human individuals.

Evolution always goes on with involution. The sciences are continually finding in the past new material for study. The more the sciences evolve the further back do they involve. Thus evolution is endless, science continually producing new material. The evolution of the sciences is itself the secret principle which requires the history of culture to be written according to evolutionary prin-

ciples, and this is a labour that must be continually renewed.

If we are to overcome the error and evil of the past we must step outside evolution. Evolution necessarily involves the notion of cycles. Every process of evolution must return to its starting point. The stream can rise no higher than its source. It alters the matter not a whit if, as in the modern theory of Emergent Evolution, we suppose that the higher is superposed upon the lower. If the higher is in any way conditioned by the lower, then this lower will determine a return to itself. Thus, mortal man returns to dust.

In Bergson's theory of evolution it is held that human beings are at the apex of evolution, at least on one line, and the ground for this is the more complex structure of the brains and nervous structures of the higher mammalia. This complex material structure offers a resistance to the tendency of matter to run down and disperse the powers of the individual. But simply because the complexity of structure is funded in perishable matter then this inner complexity of physical organisation is no evidence of evolution. In so far as Life is based on material organisation there is no difference in principle between man and the lower animals.

The fact that these more complex " machines," human bodies, are more subject to accident, and the fact that they all perish, are proof that here we have no absolute evolution. This evolution does not reveal matter as increasing in mobility and as being brought nearer to spirit. On the contrary it is qualified by the devolution of the hardened and mechanised matter of the human bodies into dust.

The series of animal species are not examples of true creation. They are the outcome of various zones of indetermination, i.e. they are the outcome of caprice, not freedom. There is no unity in these struggling species, any more than there is unity in the struggling desires of

the individual. Bergson himself says that there is freedom only where the whole personality is engaged; there is unfreedom where action is the result of the isolated desires of the individual. The common theories of evolution simply construe the chaotic and chance-given events of world process according to evolutionary laws which deny the nature of the facts and distort the connections in which they were found. They attempt, without success, to impose law upon contingency.

The history of the evolution of animal forms shows not the unity of a personality, but rather the discord of one who has potentially within him diverse, and even contradictory, personalities. Evolution as portrayed by Bergson is analogous to cases of split or dissociated personalities.

The theory of Evolution assumes that every movement in nature necessarily implies progress. It is a mistaken and abortive attempt to rationalise the irrational. The notion of evolution is often made by loose thinkers to join hands with the nisus or striving of the individual human will, but the two are perfectly distinct and their separation is clearly marked in human consciousness. The individual who brings his effort down so as to dovetail or coincide with natural evolution is a decadent. If, on the other hand, natural evolution is forced into conformity with social effort and the highest ideals of humanity, then the theory of natural evolution must go by the board.

It is claimed that evolution, by being subordinated to human effort, can be made consistent with the highest morality. But our complaint is that this morality is pharisaic; Man has a higher end than the conquest and control of nature. As we have previously shown, the human individual is not self-explaining; he originates in human society. And yet it is from the birth, growth and maturity of human individuals that the various theories of moral or eudæmonistic evolution are derived. These theories of evolution in morals are supposed to supplement and correct the theory of natural evolution, but are at bottom struck with the same defect.

Some have tried to get over the difficulty by transferring the concept of evolution from Nature and from the individual to human society. They assume primitive society to be the precursor and progenitor of modern civilisation. But this is only a piece of self-mystification; it pushes the question further back but still leaves it unanswered. Primitive society is no more self-explaining than the human individual, and if the human individual is derivative, no less is primitive society derived from a higher system. Nature, man and society are severally and jointly misread, if they are interpreted according to the maxims of the evolution-devolution theory.

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